

ISSUE FOR CONSTRUCTION REV. 2
9/16/2022

| NO. | SHEET DESCRIPTION |
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| FS13 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (5 OF 12) |
| FS14 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (6 OF 12) |
| FS15 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (7 OF 12) |
| FS16 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (8 OF 12) |
| FS17 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (9 OF 12) |
| FS18 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (10 OF 12) |
| FS19 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (11 OF 12) |
| FS20 | KITCHEN FLOOR PLANS HOOD SYSTEM DETAILS (12 OF 12) |

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|--------------------------------|----------------------------------|--|
| Designed by: MC / KJL | Drawn by: KJL | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: MC / JAB / PSA | Drwg. Code: | File Name: BM-301-ROAD Engineering Student Program - South Student REP |
| Submitted by: Perez APC | Plot Date: 9/17/2022 8:18:47 AM | Plot Scale: VARIES |
| Issued Date: 9/16/2022 | Contract No: | |
| Deliverable Date: 9/16/2022 | AD-0041-15-0005 / 17206823250009 | |



USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
COVER SHEET

Sheet
Reference
Number

G0.10

CLIN 0002

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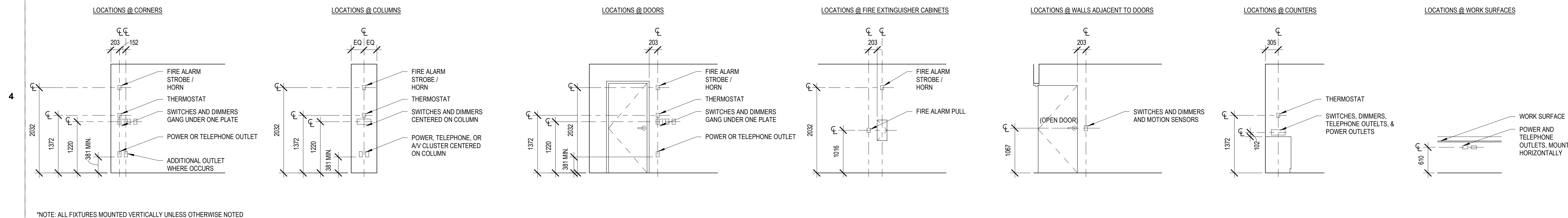
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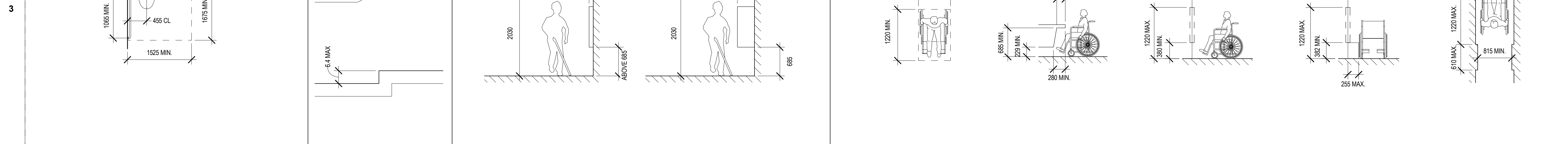
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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



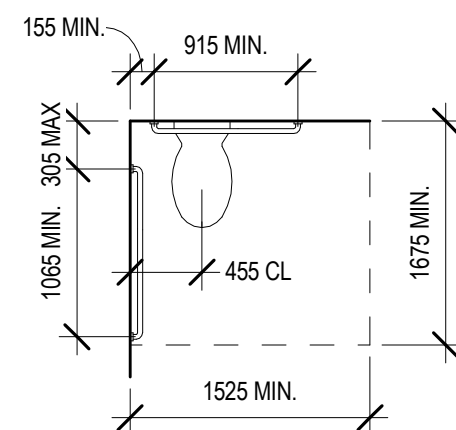
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|---|---------------------------------|
| 1 | WALL FIXTURE MOUNTING LOCATIONS |
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SCALE: 1:50



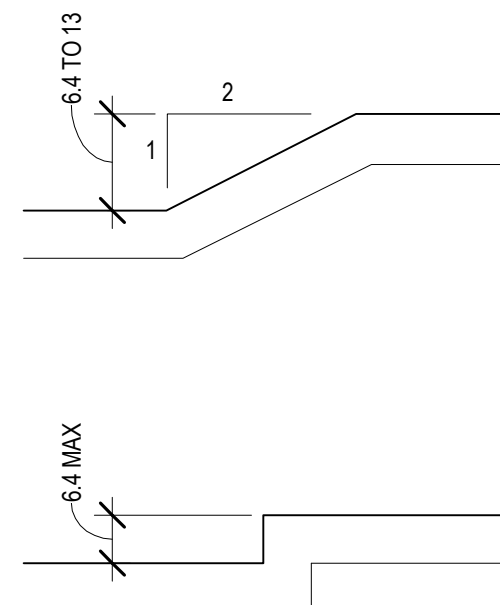
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|---|------------------------|
| 2 | W.C. & GRAB BAR LAYOUT |
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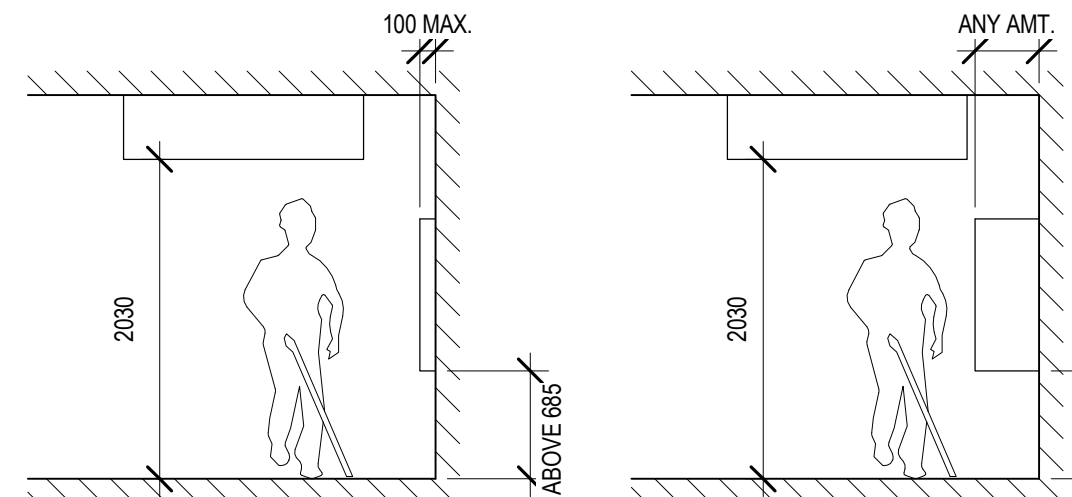
3 THRESHOLDS

SCALE: 1:50



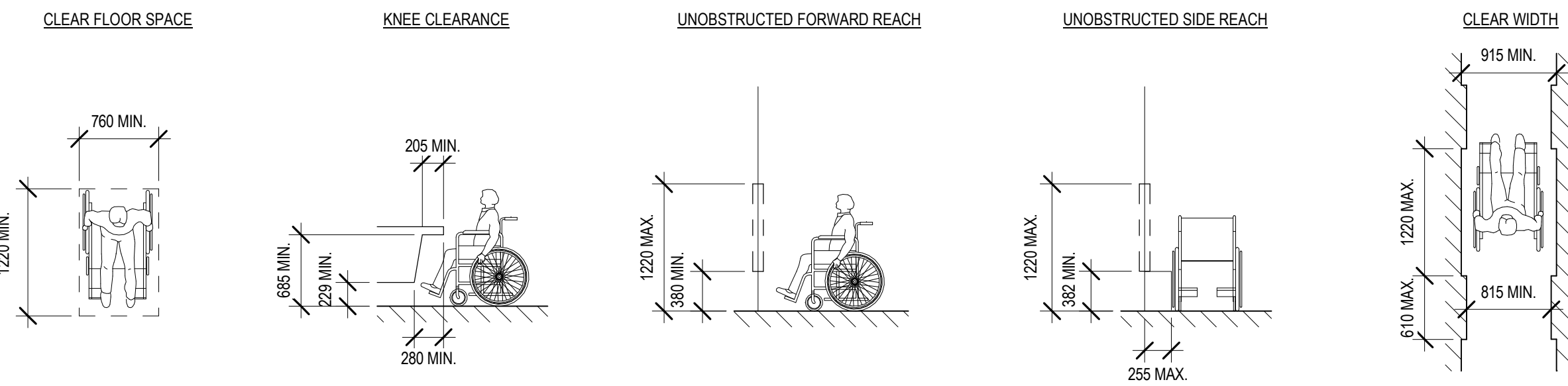
4 PROTRUDING OBJECTS

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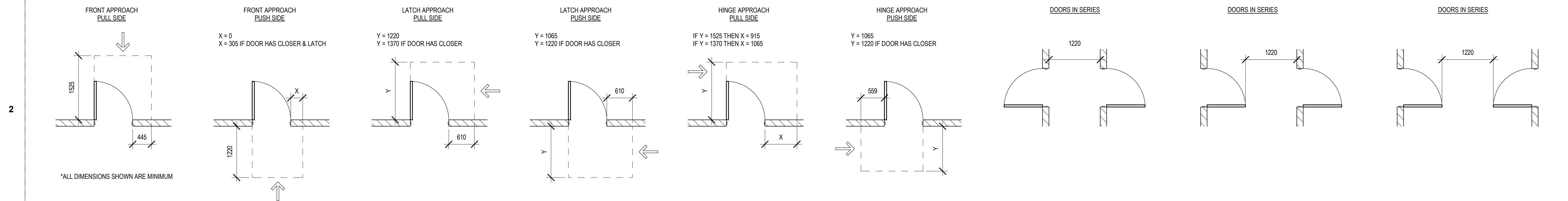
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| 5 | REACH RANGES |
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SCALE: 1:50



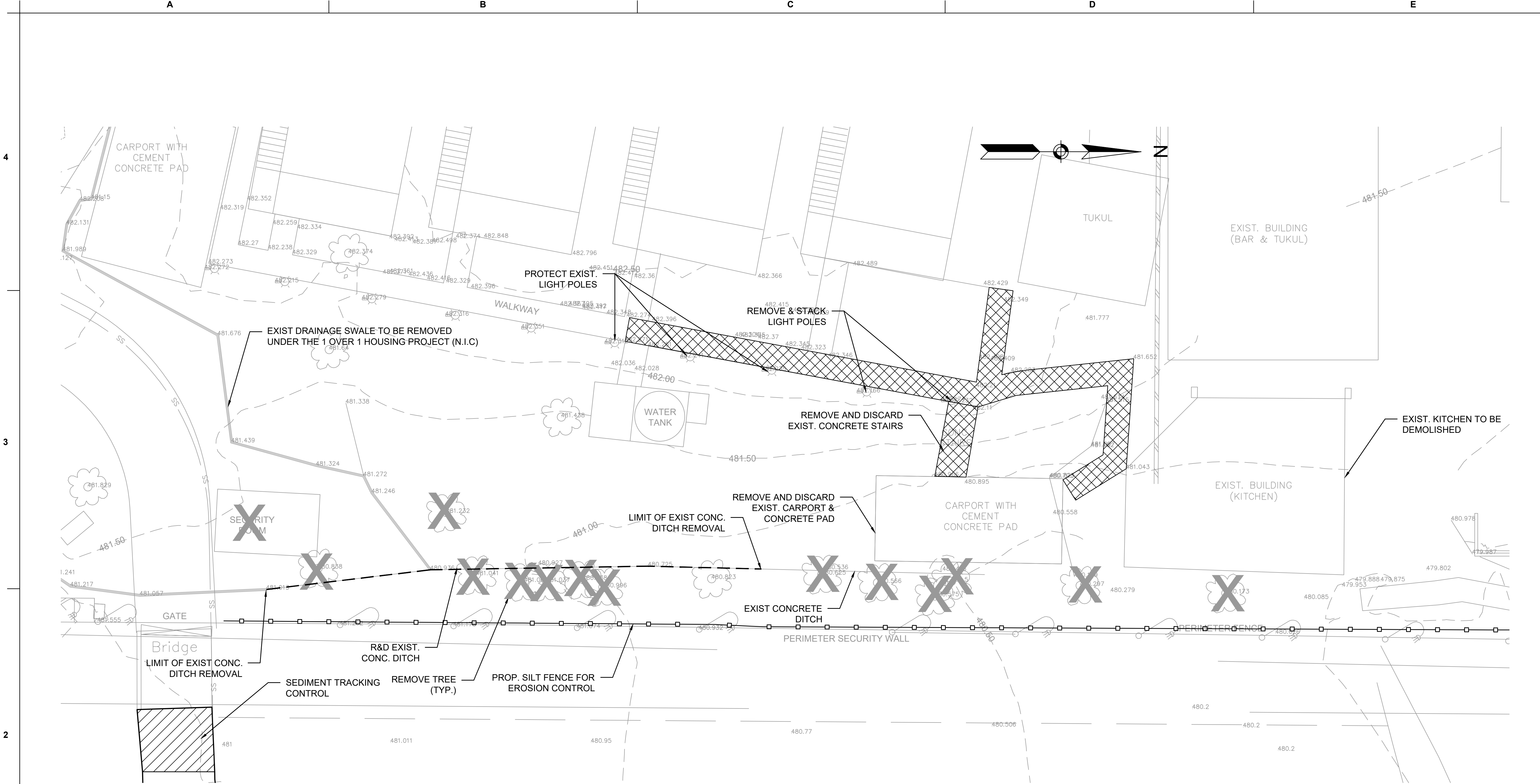
6 TYPICAL DOOR CLEARANCES

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| Designed by: MC / KJL | Drawn by: KJL | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: MC / AOB / PSA | Dwg. Code: | File Name: 3D Model - 3D Modeling Standard Project - South Island ESP 3D SUDAN KITCHEN.rvt |
| Submitted by: Perez APC | Plot Date: 9/17/2022 | AM |
| | Plot Scale: VARIES | |
| Issued Date: 05/01/2021 | Contract No: | |



DEMOLITION PLAN - KITCHEN
1:100

DEMOLITION NOTES:

1. THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND HAVE NOT BEEN VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
2. THE CONTRACTOR SHALL FULLY INVESTIGATE THE EXISTING SEWER CONNECTIONS, REPORT THEIR FINDINGS, AND SUBMIT ANY REQUIRED CHANGES FOR REVIEW.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
4. ALL UTILITY CONNECTIONS ARE SUBJECT TO THE APPROVAL OF, AND GRANTING OF APPROVAL BY THE APPROPRIATE GOVERNMENT AUTHORITIES. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO SEE THAT ALL APPROVALS ARE OBTAINED BEFORE STARTING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS FOR PERFORMING ANY NECESSARY WORK INVOLVED WITH THE DISCONTINUANCE OF ANY UTILITIES, SUCH AS ELECTRIC, TELEPHONE, WATER, GAS, AND ANY SYSTEM OR SYSTEMS WHICH WILL BE AFFECTED BY THE WORK TO BE PERFORMED UNDER THE CONTRACT.
6. THE CONTRACTOR SHALL NOTIFY THE OWNER, IN WRITING, AT LEAST 72 HOURS AND NO MORE THAN 30 DAYS PRIOR TO ANY CONSTRUCTION. CONSTRUCTION SHALL NOT INTERFERE WITH OR INTERRUPT UTILITIES WHICH ARE TO REMAIN IN OPERATION.

| LEGEND | |
|-----------------------------------|--|
| SEDIMENT TRACKING CONTROL (BMP-3) | |
| SILT FENCE BARRIER (BMP-4) | |
| TREE REMOVAL | |



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
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| Symbol | Description | Date | Appr. |
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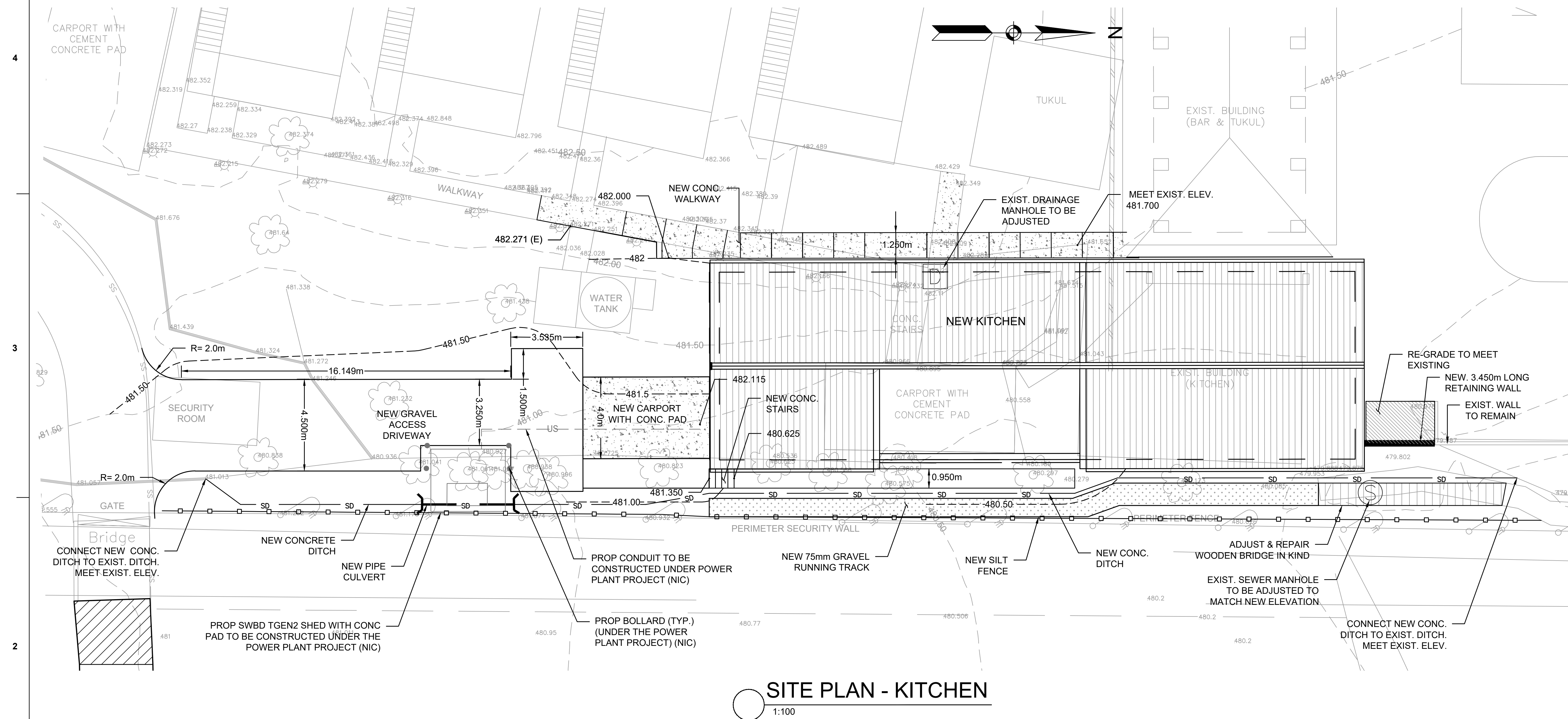
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| Contract Date: NOVEMBER 30 2020 | Drawn by: | Contract Date: NOVEMBER 30 2020 |
| File Name: | Drwg. Code: | File Name: |
| Plot Date:- | Submitted by: Approver | Plot Date:- |
| Plot Scale: VARIES | Contract No: | Plot Scale: VARIES |
| Issued Date: | Deliverable Date: 9/16/2022 | Contract No: |
| | | AEC-000-1-15-000517200000000000 |

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| USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM ISSUE FOR CONSTRUCTION REV.2 | DEMOLITION PLAN FOR KITCHEN |
|---|--------------------------------|

Sheet
Reference
Number

C100


CLIN 0002






GENERAL NOTES:


1. SEE DEMOLITION PLAN FOR ADDITIONAL NOTES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS, NOTES, AND DETAILS.
3. REFER TO ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL NOTES, SYMBOLS, EQUIPMENTS, CONNECTIONS AND DETAILS.
4. SEE AS1.01 & AS1.02 FOR PHASE 1 AND PHASE 2 CONSTRUCTIONS.
5. CONTRACTOR TO VERIFY THE LOCATION OF THE EXISTING WATER SERVICE AND CONNECT NEW PLUMBING SYSTEM TO THE EXISTING WATER SERVICE.



LEGEND

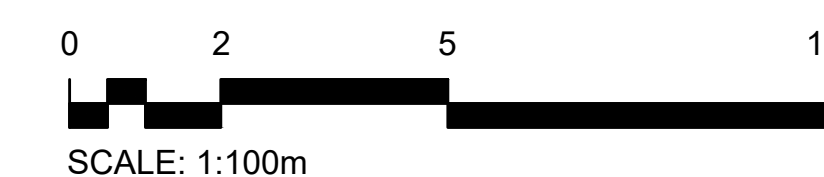
SEDIMENT TRACKING CONTROL (BMP-3) 

SILT FENCE BARRIER (BMP-4) 

PROP CONTOUR  482.00 

PROP RAILING 

PROP STORM DRAIN  SD 

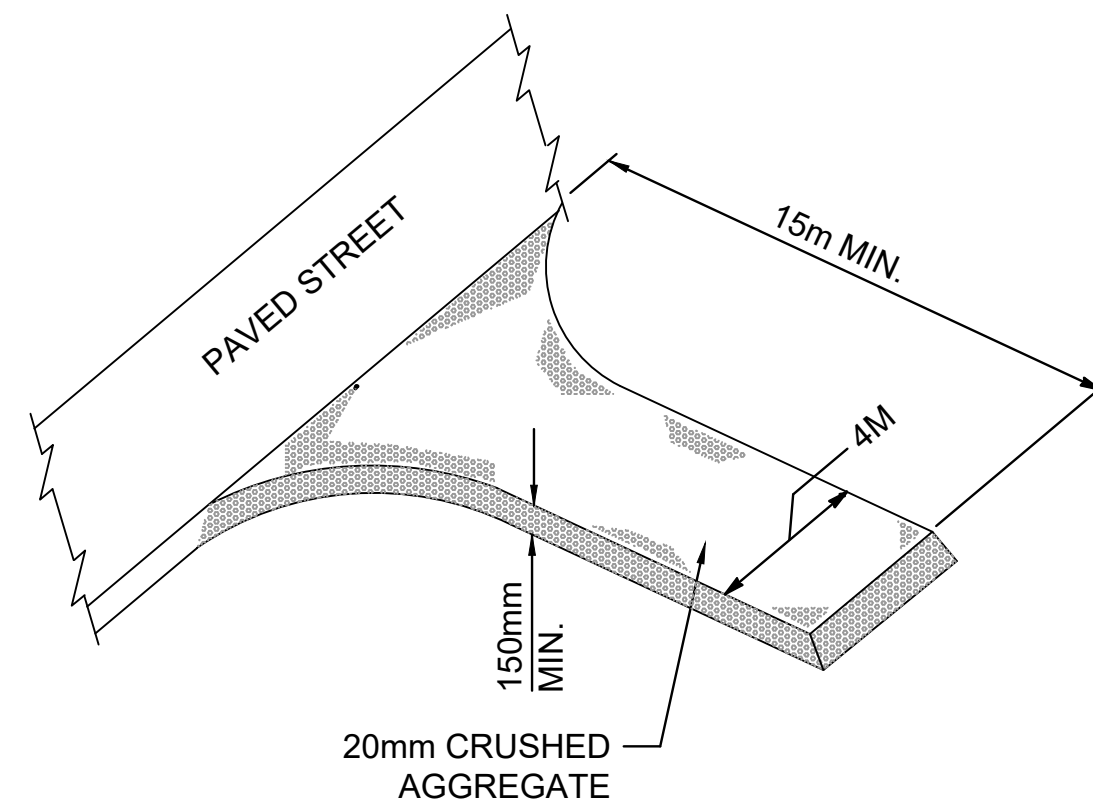


BEST MANAGEMENT PRACTICES PLAN
GENERAL NOTES:

1. STORMWATER MANAGEMENT PLANS, INCLUDING BMPs, ARE INTENDED TO ENSURE COMPLIANCE WITH SECTION 438 OF THE ENERGY INDEPENDENCE AND SECURITY ACT
2. THE SEDIMENT AND EROSION CONTROL BMPs INDICATED HEREIN ARE INTENDED AS A MINIMUM BMP PLAN. THE BMP PLAN SHALL BE AMENDED AS NECESSARY FOR THE SPECIFIC PROJECT REQUIREMENTS AS DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
3. EROSION AND SEDIMENT CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DEVELOP A SITE SPECIFIC BEST MANAGEMENT PRACTICES (BMP) PLAN DESIGNED FOR THE SPECIFIC METHOD(S) OF CONSTRUCTION PREFERRED BY THE CONTRACTOR FOR EACH PHASE OF CONSTRUCTION. THE CONTRACTOR'S BMP PLAN SHALL MEET THE LOCAL REQUIREMENTS PROJECT SPECIFICATIONS, AND THE MINIMUM BMP REQUIREMENTS SHOWN IN THIS PLAN SET. THE CONTRACTOR'S BMP PLAN SHALL BE DESIGNED TO MINIMIZE EROSION OF THE EXISTING SITE, NEWLY GRADED AREAS OF THE SITE, AND SHALL NOT ALLOW ANY SEDIMENTS TO EXIT THE PROJECT SITE.
4. CONTRACTOR MAY PROPOSE BMP MEASURES IN ADDITION TO THOSE AS PRESENTED ON THIS SHEET. ALL BMPs SHALL BE APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION, AND INSTALLED PER DETAILS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER APPLICATION OF ALL BMPs. THE CONTRACTOR MAY IMPLEMENT BMPs NOT LIMITED TO THE BMPs PRESENTED AS NECESSARY TO ENSURE COMPLIANCE WITH LOCAL REQUIREMENTS.
6. THE CONTRACTOR IS REQUIRED TO IMPLEMENT ANY ADDITIONAL BMPs THAT MAY BE REQUIRED OR AS DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
7. CONTRACTOR SHALL INSTALL BMP 3 - SEDIMENT TRACKING CONTROL AT ALL EXIT POINTS FROM CONTRACTOR STAGING AREA AND OTHER LOCATIONS AS REQUIRED OR DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
8. REFER TO ITEM IV ON SHEET C-001 FOR ADDITIONAL NOTES.

1 GENERAL NOTES

NOT TO SCALE



NOTE:
CRUSHED AGGREGATE PAD IS REQUIRED TO PROVIDE BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING IT ONTO PAVED STREETS, TO CONTROL EROSION FROM SURFACE RUNOFF, AND TO HELP CONTROL DUST.

CRUSHED AGGREGATE ENTRANCE/EXIT PAD

3 SEDIMENT TRACKING CONTROL

CONSTRUCTION SCHEDULING AND BEST MANAGEMENT PRACTICES (BMP) IMPLEMENTATION SCHEDULE

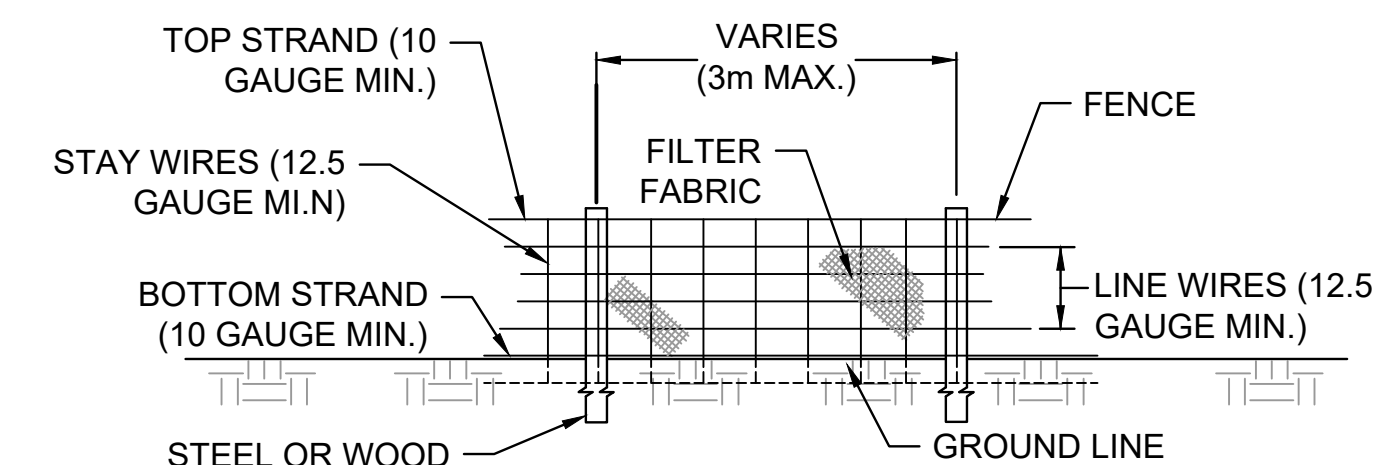
| CONSTRUCTION ACTIVITY | B.M.P. CONSIDERATION |
|--|--|
| 1. DEMOLITION AND REMOVALS | INSTALL BMP SILT FENCE, STRAW BALES AND OTHER BMPS AS NECESSARY |
| 2. STOCKPILE AREAS | INSTALL SILT FENCING, STRAW BALES, AND OTHER BMPS AS NECESSARY |
| 3. SITEWORK CONSTRUCTION | CLEAR AND STRIP SITE OR WORK AREA AS REQUIRED TO INSTALL BMPS IN ACCORDANCE WITH THE CRITERIA PLANS OR AS NECESSARY. INSTALL SILT FENCES STRAW BALES, SEDIMENT TRAPS, INLET PROTECTION, AND OTHER BMPS AS NECESSARY. |
| 4. ROUGH GRADING (SLOPES) | PERFORM TEMPORARY SEEDING OR SODDING AS SLOPES ARE COMPLETED |
| 5. SITE GRADING | STABILIZE AND SEED OR SOD AS EACH AREA OF WORK IS COMPLETED |
| 6. ROUTINE MAINTENANCE | MAINTAIN SILT FENCES AND OTHER BMPS INSTALL SEDIMENT TRAPS OR ADD BMPS AS NECESSARY. |
| 7. FINAL STABILIZATION OF WORK AREAS AND COMPLETION OF LANDSCAPING | AFTER STABILIZATION OF GRADED AREAS AND AS APPROVED BY THE C.O.R. THE CONTRACTOR MAY REMOVE AND STABILIZE ALL BMP MEASURES. |
| MAINTENANCE REPAIRS OR ADJUSTMENTS TO BMPS SHALL BE PERFORMED IMMEDIATELY OR AS DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE | |

BEST MANAGEMENT PRACTICES IMPLEMENTATION SCHEDULE

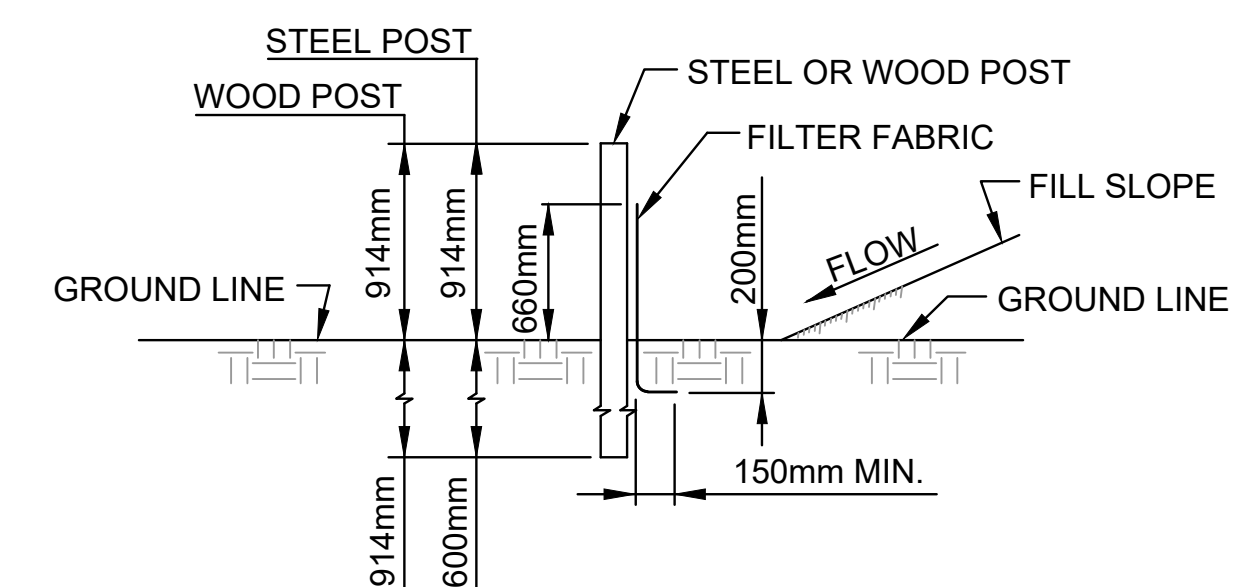
2 NOT TO SCALE

NOTES:

1. SILT FENCE SHALL BE INSTALLED ALONG TOE OF EMBANKMENTS, ALONG AREAS OF DISTURBED GROUND, AND AROUND STORM DRAIN INLETS AND MANHOLES.
2. WIRE SHALL BE A MIN. WIDTH OF 32 WITH A MIN. OF 6 LINE WIRES WITH 300mm STAY SPACING.
3. FILTER FABRIC MIN. WIDTH IS 1.0m.
4. FILTER FABRIC TO BE SECURELY FASTENED TO THE WIRE.
5. STEEL POSTS TO BE 1.6m IN LENGTH AND SELF-FASTENER ANGLE STEEL TYPE.
6. WOOD POSTS TO BE A MIN. OF 1.8m IN LENGTH AND 75mm OR MORE IN DIAMETER.
7. WIRE FABRIC TO BE FASTENED TO WOOD POST WITH NOT LESS THAN NO. 9 WIRE STAPLES, 37.5mm LONG.
8. ACCUMULATED SEDIMENTS SHALL BE REMOVED PERIODICALLY AS NECESSARY OR DIRECTED.
9. THE FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:
 - A. EOS NOT LARGER THAN U.S. STANDARD SIEVE NO.70
 - A. GRAB STRENGTH 40.8-54.4 kg
 - B. CONFORM TO ASTM D-1682 OR ASTM D-177



ELEVATION



SECTION

4 SILT FENCE BARRIER
NOT TO SCALE

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| Contract Date: | NOVEMBER 30, 2020 |
| Drawn by: | |
| Designed by: | |
| Reviewed by: | |
| Drwg. Code: | |
| File Name: | |
| Submitted by: | Approver |
| Plot Date: | VARIES |
| Issued Date: | |
| Deliverable Date: | 9/16/2022 |
| Contract No: | |
| ARB-00A-15-00051 / 7204652F-00003 | |

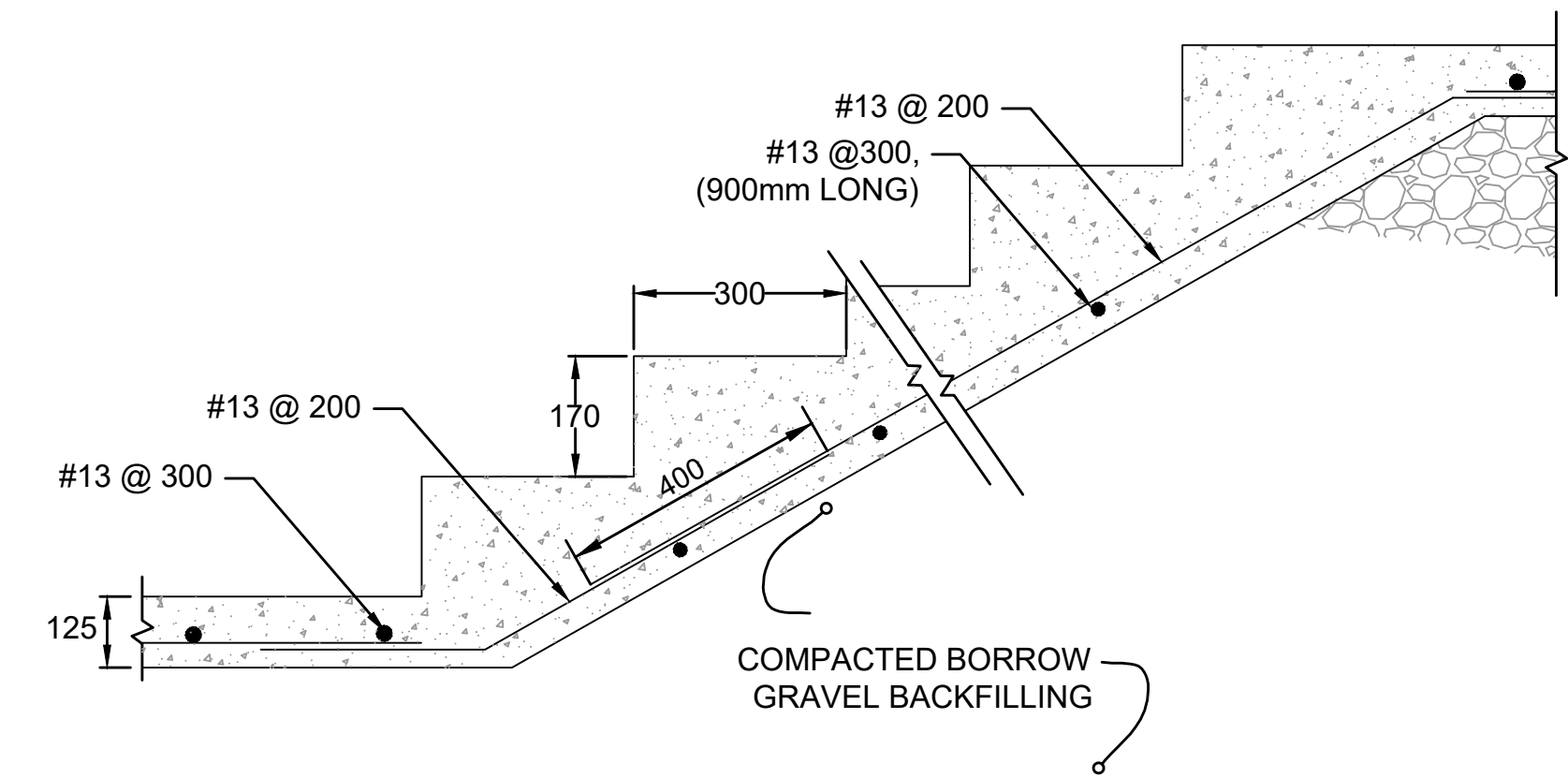
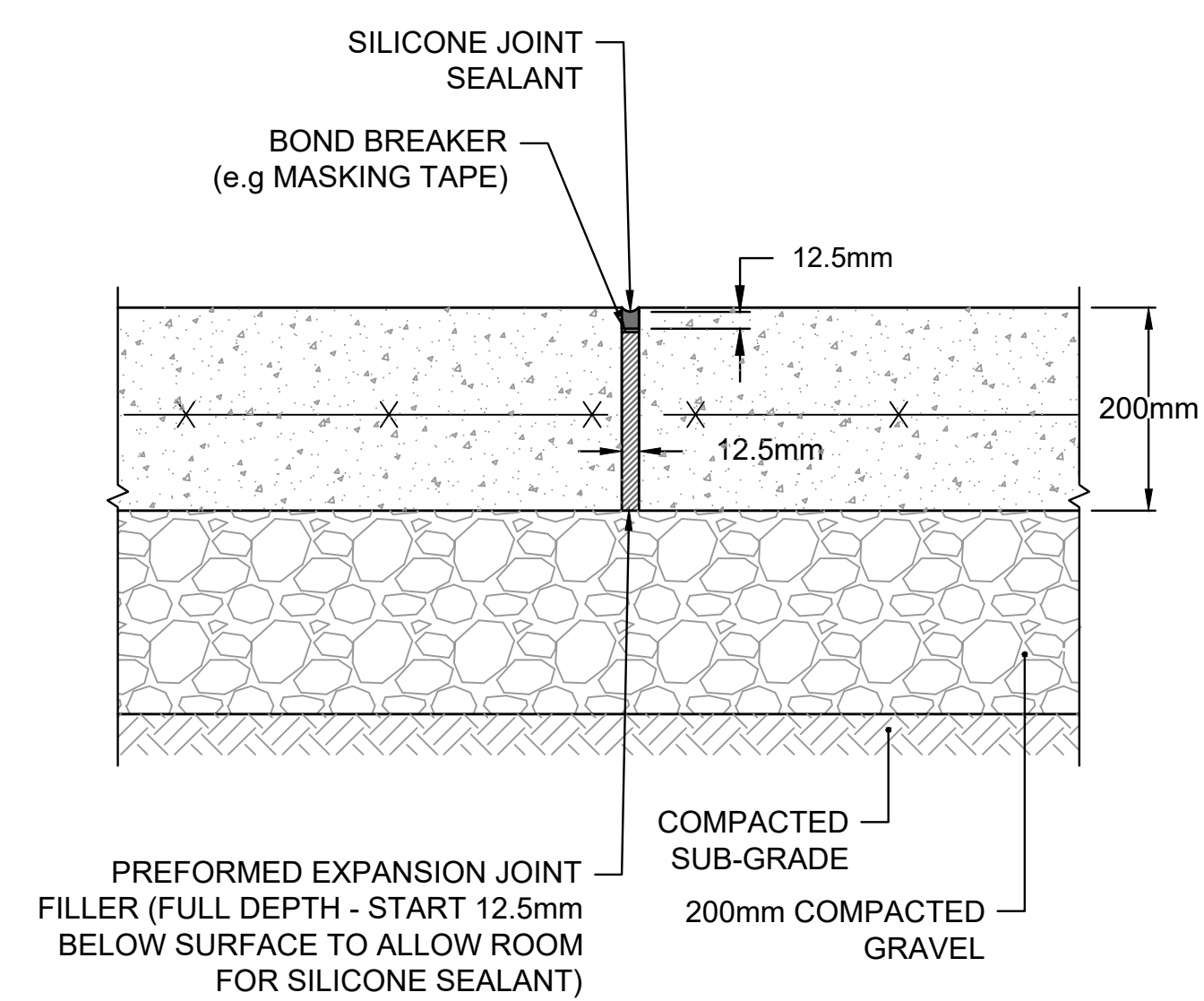
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**BMP DETAILS
KITCHEN**

Sheet
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Number

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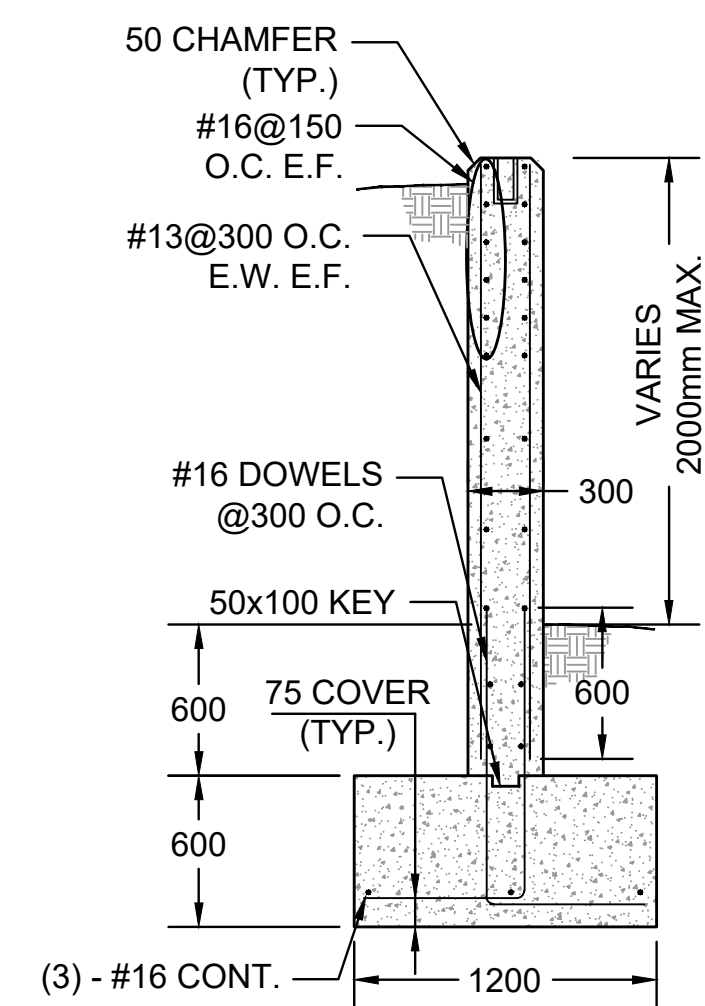


DETAIL AT CONTROL JOINTS

DETAIL AT CONSTRUCTION JOINTS

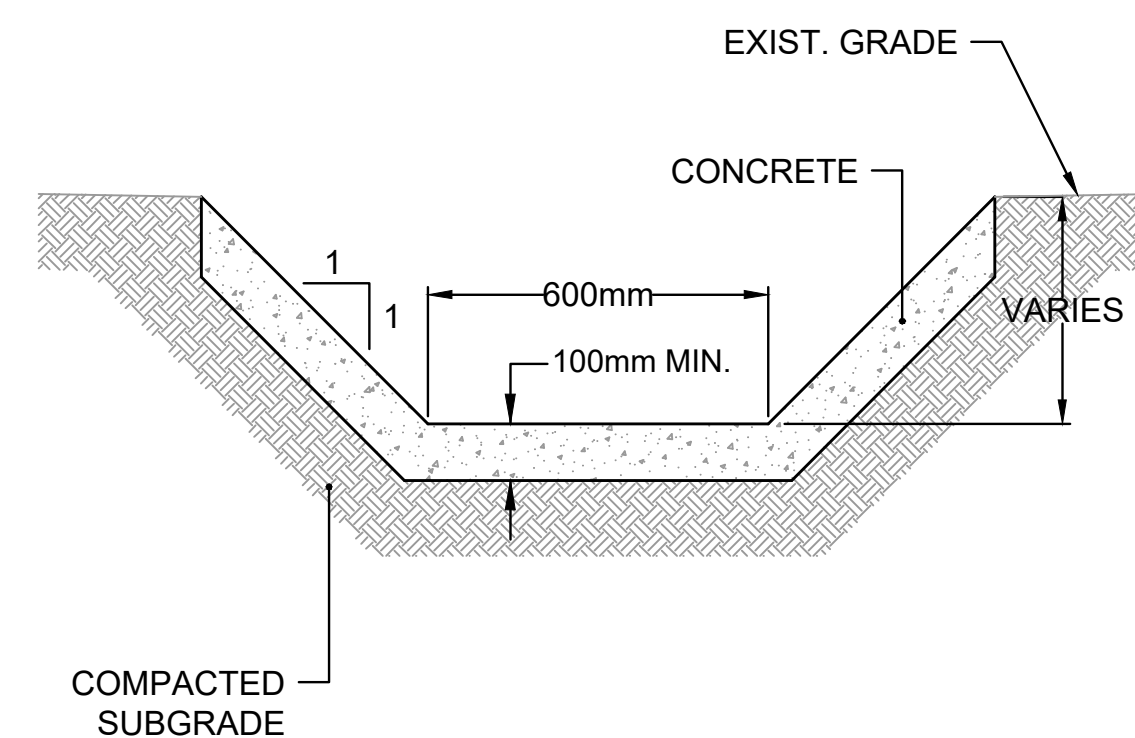
1 CONCRETE SIDEWALK DETAIL

1:5



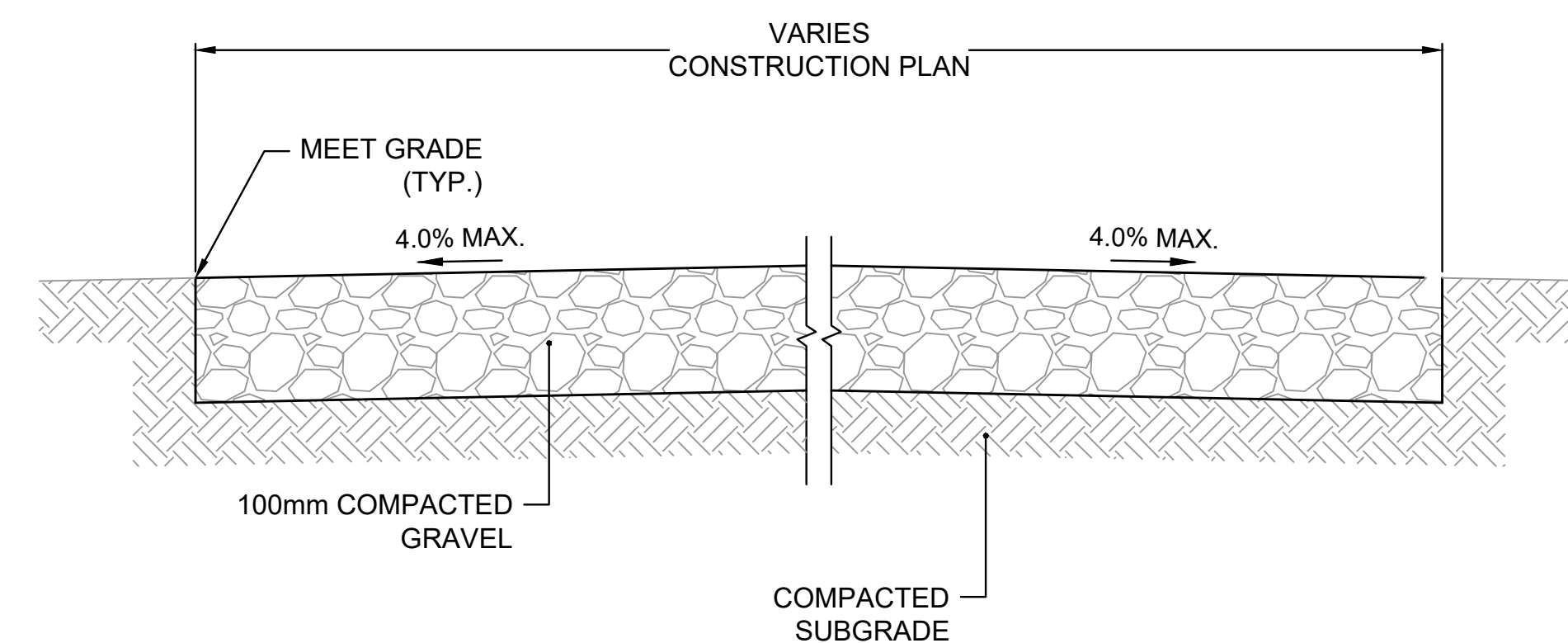
4 CONCRETE WALL DETAIL

SCALE 1:30



5 TYPICAL CONCRETE DITCH

NOT TO SCALE



6 GRAVEL DRIVEWAY DETAIL

NOT TO SCALE

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| Designed by: _____ | Drawn by: _____ | Contract Date: NOVEMBER 30, 2020 | |
| Reviewed by: _____ | Drwg. Code: _____ | File Name: _____ | |
| Submitted by: Approver _____ | | Plot Date: - | |
| | | Plot Scale: VARIES | |
| Issued Date: _____ | Contract No: _____ | | |
| Deliverable Date: 9/16/2022 | AEC-0441-15-0005 / 1726852P-0003 | | |

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SAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV.2

CONSTRUCTION DETAILS
KITCHEN

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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

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| Designed by: MC / KJL | Drawn by: KJL | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: MC / AOB / PSA | Drwg. Code: | File Name: Boulder - Boulder - Portland - Portland - PSP 903 DOWA KITCHEN.rvt |
| Submitted by: Perez APC | Plot Date: 9/17/2022 8:18:46 AM | Plot Scale: VARIES |
| Issued Date: 9/14/21 | Contract No: AND-044116-00001 | 7/26/662/02/00003 |
| Deliverable Date: 9/16/2022 | | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
EXISTING PHOTOS

Sheet
Reference
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CLIN 0002



1. VIEW AT EXISTING TUKUL LOOKING TOWARDS KITCHEN
2. EXISTING TUKUL ROOF, COLUMNS, & CONCRETE FLOOR SLAB TO REMAIN.

PHOTOGRAPH 001



1. EXTERIOR VIEW AT EXISTING KITCHEN.
2. OBSERVE THE VARYING LEVELS OF THE CONCRETE FLOORS, AND THE HEIGHT DIFFERENCE FROM KITCHEN TO EXISTING TUKUL.
3. MAINTAIN THE EXISTING INTERIOR KITCHEN FLOOR ELEVATION AT NEW CONSTRUCTION.

PHOTOGRAPH 002



- ### 1. EXTERIOR VIEW AT EXISTING KITCHEN

PHOTOGRAPH 003



1. VIEW OF COVERED LOADING AREA AT KITCHEN.
2. PERFORM CAREFUL, SELECTIVE DEMOLITION OF CANOPY COVERING AND STEEL FRAMING FOR SALVAGE OR REUSE
3. CONSTRUCT NEW CANOPY PER

PHOTOGRAPH 004



1. VIEW OF AREA AT KITCHEN WALKWAY BETWEEN KITCHEN AND CONTAINER STORAGE.

PHOTOGRAPH 005



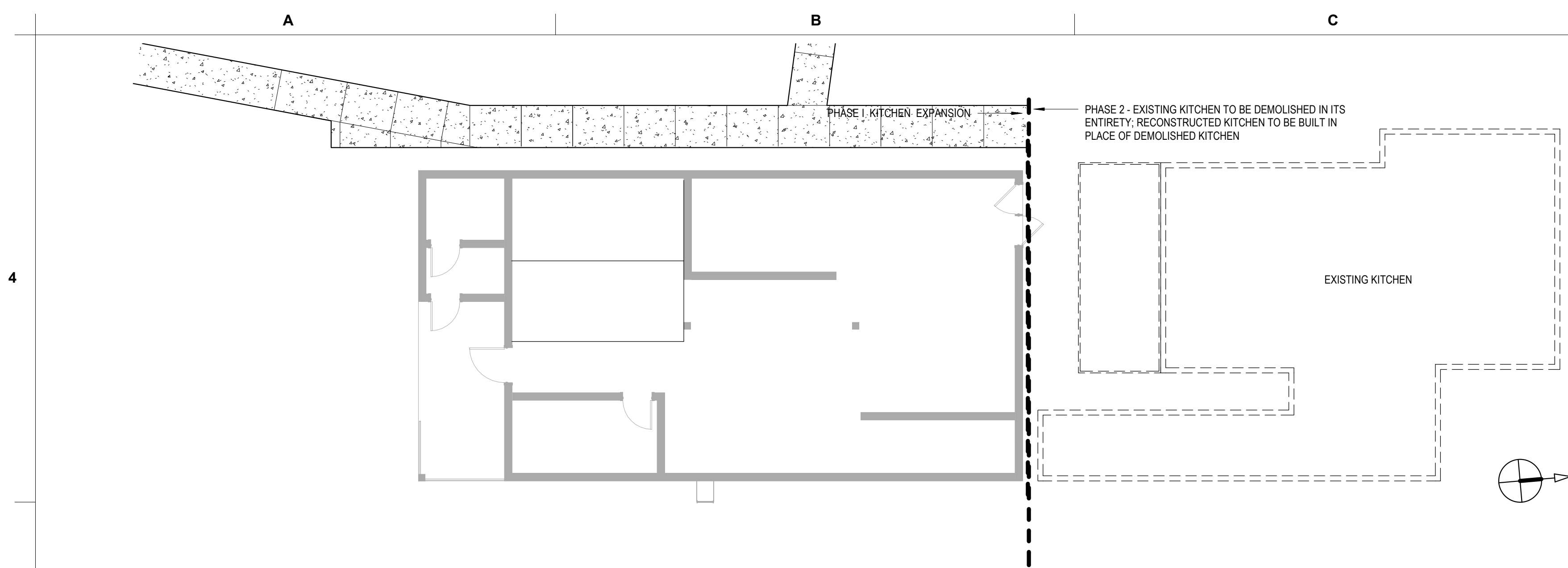
1. VIEW OF KITCHEN/CONTAINER
STORAGE FROM DRIVEWAY
ACCESS AND CANOPY

PHOTOGRAPH 006



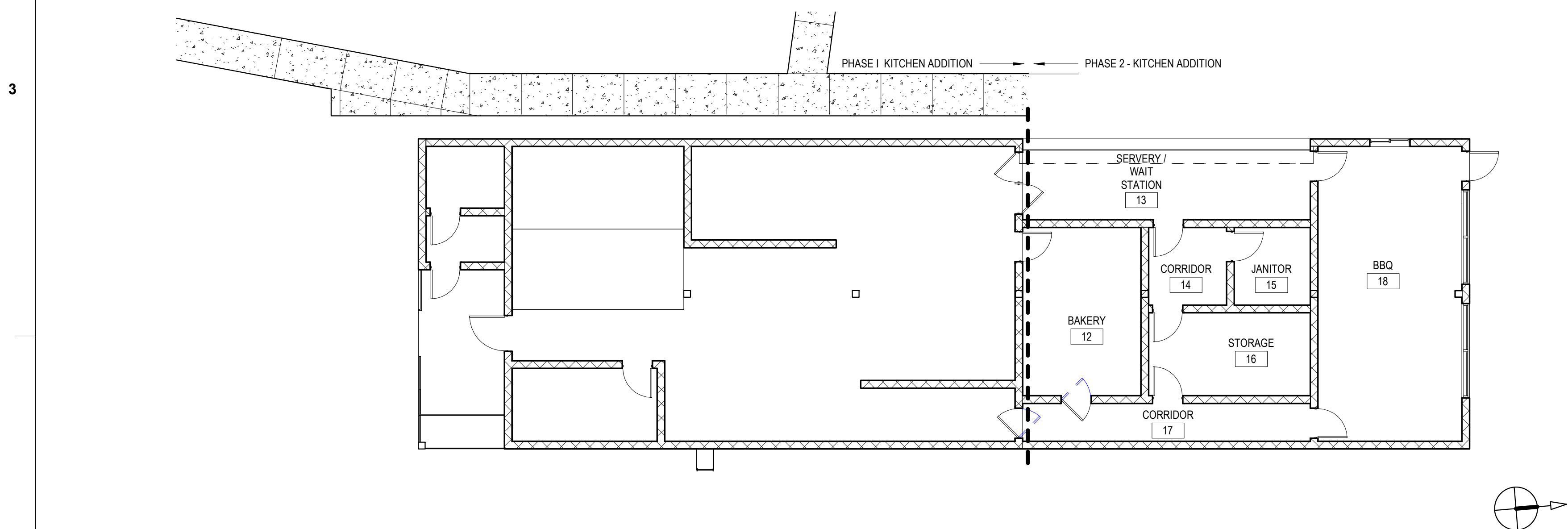
- ### 1. VIEW OF TYPICAL SITE STORM DRAINAGE

PHOTOGRAPH 007



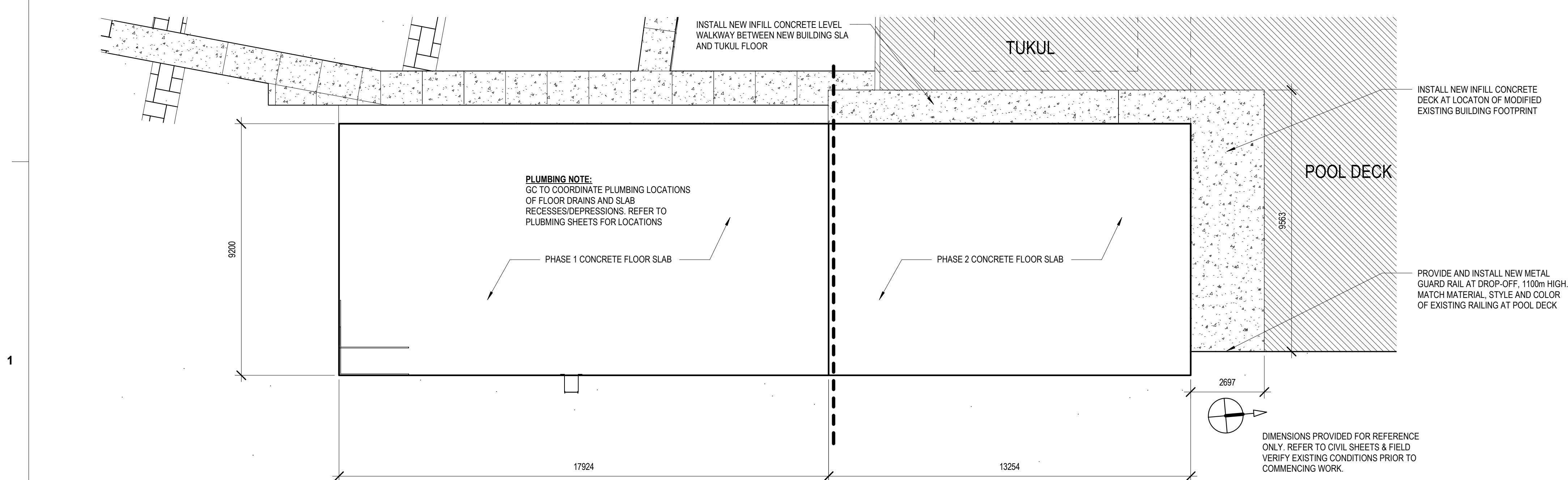
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|---|---------------------------------------|
| 1 | PHASE 2 - EXISTING KITCHEN DEMOLITION |
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SCALE: 1 : 100



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| 2 | PHASE 2 - KITCHEN RECONSTRUCTION |
|---|----------------------------------|

SCALE: 1 : 100



3 CONCRETE FLOOR SLAB & ADJACENT PAVING PLAN

SCALE: 1 : 100

REF: 1 / A3.00

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

GENERAL NOTES: DEMOLITION

A. THE GENERAL CONTRACTOR IS NOTIFIED THAT THE OWNER SHALL CONTINUE TO WORK ON THE CONSTRUCTION SITE AND IN ADJACENT THE BUILDINGS THROUGHOUT THE ENTIRE DURATION OF THE MAIN BUILDING RENOVATION WORK. THE GC SHALL MAINTAIN CLEAR ACCESS TO OWNER PARKING, AND TO THE OTHER BUILDINGS LOCATED ADJACENT TO THE MAIN BUILDING.

B. ALL WORK REQUIRED FOR THIS RENOVATION SHALL COMPLY WITH LOCAL AND STATE BUILDING CODES AS WELL AS WITH OTHER REGULATORY AGENCY REQUIREMENTS HAVING JURISDICTION.

C. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE AND DEBRIS GENERATED AS THE RESULT OF THIS RENOVATION WORK. THE GENERAL CONTRACTOR SHALL COORDINATE THE REMOVAL AND PROPER LEGAL DISPOSAL OF ALL SUCH RUBBISH AND DEBRIS. THE GENERAL CONTRACTOR SHALL PERFORM DAILY CLEANING OF THE CONSTRUCTION SITE.

D. THE WORK ARE SHALL BE KEPT SAFE AND CLEAN AT ALL TIMES.

E. NO HAZARDOUS MATERIALS HAVE BEEN DETERMINED TO BE PRESENT ON THE SITE OR AS PART OF THE BUILDING RENOVATION. HOWEVER, SHOULD THE GENERAL CONTRACTOR ENCOUNTER SUSPICIOUS MATERIAL, THE GENERAL CONTRACTOR SHALL STOP WORK THAT DISTURBS SUCH SUSPICIOUS MATERIAL AND NOTIFY THE OWNER AND THE ARCHITECT AND AWAIT FURTHER DIRECTIONS.

F. THE SHEETS IN THIS SET ARE COMPLIMENTARY TO ONE ANOTHER. THAT WHICH IS CALLED FOR ON ONE SHEET SHALL BE BINDING AS IF CALLED FOR ON ALL SHEETS. ALL PARTIES INVOLVED SHALL BECOME FAMILIAR WITH ALL SHEETS, AND NOT SIMPLY THEIR OWN DISCIPLINE. NO SETS OF THESE CONSTRUCTION DOCUMENTS MAY BE BROKEN FOR DISTRIBUTION.

G. THE GENERAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT AS REQUIRED TO PERFORM ALL OPERATIONS NECESSARY FOR THE COMPLETION OF THE SELECTIVE DEMOLITION AND RENOVATION WORK DETAILED WITH THESE CONSTRUCTION DOCUMENTS.

H. THE GENERAL CONTRACTOR SHALL INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY PRECAUTIONS AND PROGRAMS ASSOCIATED WITH THIS WORK. THE CONTRACTOR SHALL TAKE ALL REASONABLE STEPS TO PREVENT INJURY TO PERSONS OR DAMAGE TO THE WORK ITSELF OR MATERIAL OR EQUIPMENT ASSOCIATED WITH THE WORK. THE CONTRACTOR SHALL SAFEGUARD AGAINST DAMAGE TO OTHERS' PROPERTIES ON SITE ADJACENT TO THE WORK.

I. THE CONTRACTOR SHALL PREPARE AND MAINTAIN AS-BUILTS, RECORD DRAWINGS, AND CLOSE-OUT DOCUMENTS.

J. THE CONTRACTOR SHALL MAINTAIN THE STORMWATER POLLUTION PREVENTION PLAN, AS REQUIRED.

K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER COORDINATION AND SEQUENCING OF THE WORK THROUGH PROJECT DURATION.

GENERAL NOTES: DEMOLITION

A. REFER TO CIVIL DRAWINGS FOR FULL EXTENT OF DEMOLITION TO SIDEWALKS, TREES, AWNINGS, UTILITIES, ETC.

B. ELEVATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED

C. EITHER THE EXISTING KITCHEN OR THE KITCHEN EXPANSION WILL BE FULLY OPERATIONAL DURING THE ENTIRE DURATION THE WORK.

D. DEMOLISH EXISTING KITCHEN FOUNDATION/RETAINING WALLS, CONCRETE FLOOR SLAB, CMU WALLS, ROOFING, FRAMING, ELECTRICAL AND PLUMBING SYSTEMS.



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

[illegible]

| | | | |
|-----------------------------|--------------|---------------------------------|---|
| MC /KJ/L | Reviewed by: | Drwg. Code: | NOVEMBER 30, 2020 |
| MC /AOB | Reviewed by: | Drwg. Code: | File Name: Submittal-Prepared - South Island ESP 30-NOV-2020 11:00 AM |
| Submitted by: Perez APC | | Plot Date: 9/17/2022 | 18:47 AM |
| Submitted by: VARIES | | Plot Date: VARIES | |
| Issued Date: 05/01/2021 | | Contract No: | |
| Deliverable Date: 9/16/2022 | | Job Number: 15-0003 / 17-206822 | 69003 |

Perez.

**SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
ASING PLAN & CONCRETE FLOOR SLAB**

PHASING PLAN & CONCRETE FLOOR SLAB PLAN

Sheet
reference
number

D1.00

CLIN 0002

| | |
|---|--|
| 1 | KITCHEN RECONSTRUCTION FLOOR PLAN SCALE: 1 : 50 |
|---|--|

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|---|--|
| 2 | KITCHEN RECONSTRUCTION REFLECTED CEILING PLAN SCALE: 1 : 50 |
|---|--|

[illegible]

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|-----------------------------------|--------------------|---|
| Designed by: | Drawn by: | Contract Date: |
| MMC / K/L | K/L | NOVEMBER 30, 2020 |
| Reviewed by: | Dwg. Code: | File Name: |
| MMC / AOB / PSA | | BIM 360://BIMD Engineering BIM 360://BIMD Kitchen.kwp 50 SUIJAN KITCHEN.rvt |
| Submitted by: | Perez APC | Plot Date: |
| | | 9/17/2022 @ 18:36 AM |
| Issued Date: | Plot Scale: | VARIES |
| 05/01/2022 | | |
| Contract No: | | |
| 400/MIA-15-00001 - 17366629/00003 | | |
| Revision Date: | | |
| 8/4/2022 | | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
ROOF PLAN

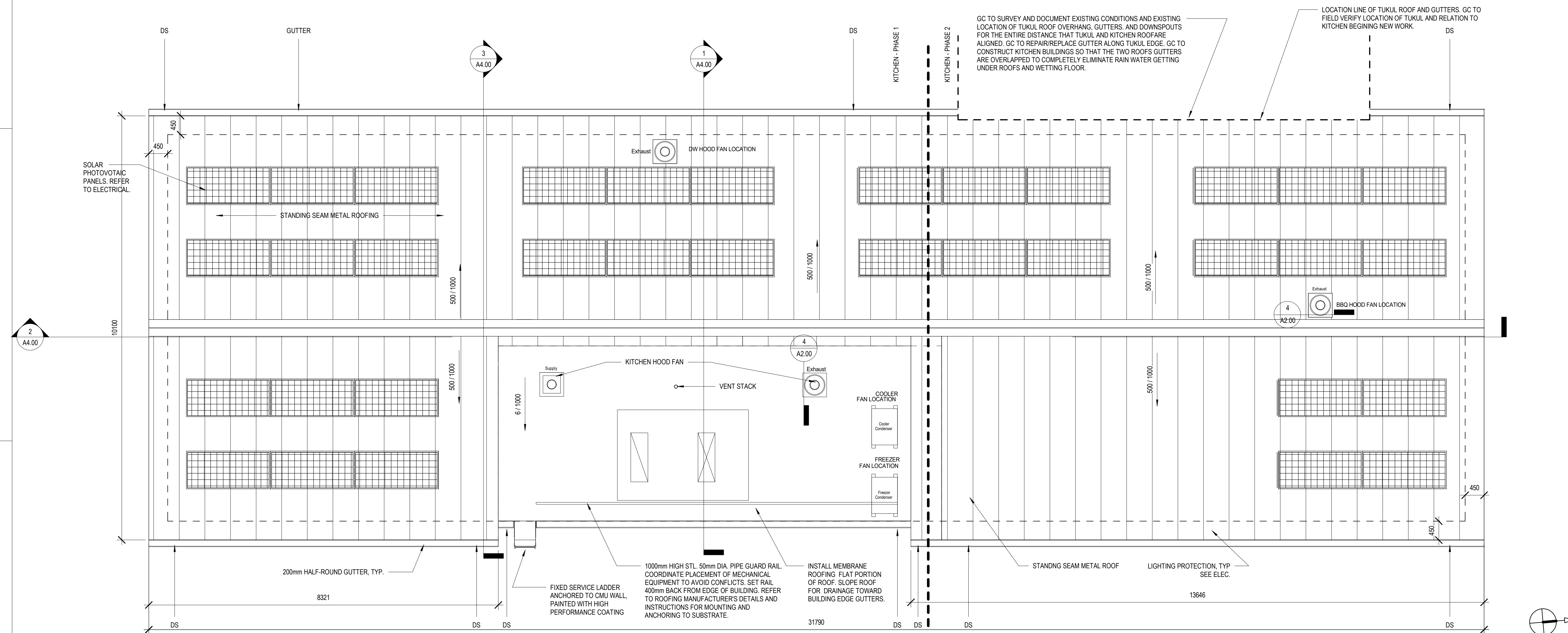
Sheet
Reference
Number

A2.00

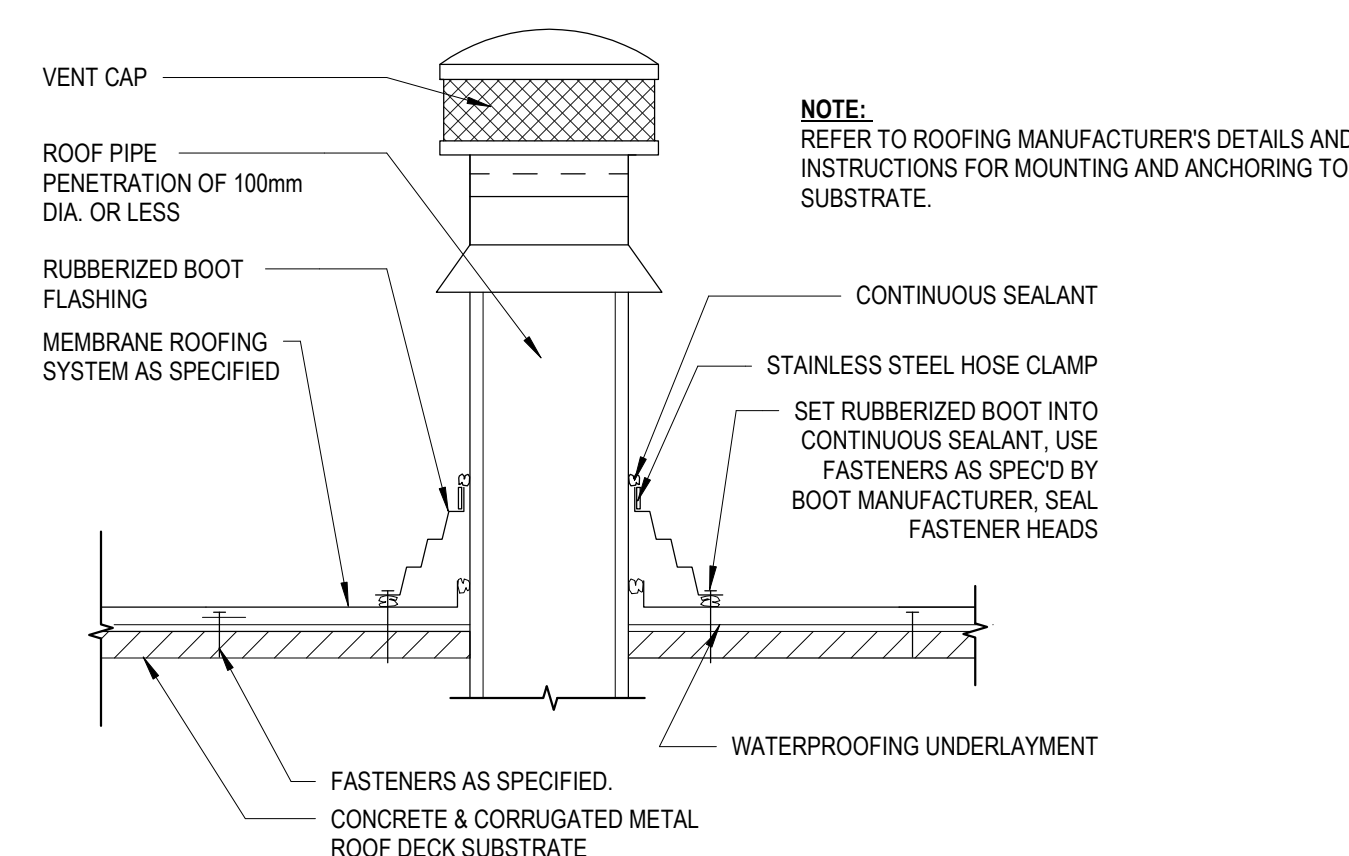
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GENERAL NOTES - ROOF PLAN

1. WHERE VENT PENETRATIONS OCCUR AT ROOF, REFER TO DETAIL 2/A2.00 FOR TYPICAL CONDITION
2. 200mm GUTTERS AND DOWNSPOUTS, TYP.
3. INSTALL NEW KITCHEN EXHAUST VENTS AT ROOF. REFER TO MECHANICAL AND FOOD SERVICE DRAWINGS.
4. INSTALL NEW RTU ON 100mm CURB. INSTALL ON NORTH/SOUTH SIDES OF EQUIPMENT TO ALLOW FOR DRAINAGE AT ONG THE FAST/WEST

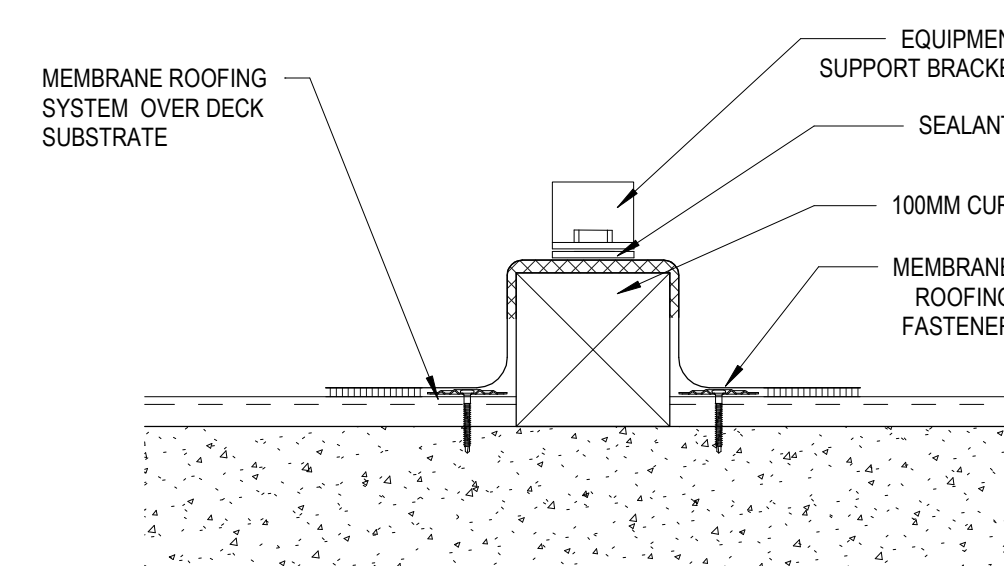


| | |
|---|----------------------------|
| 1 | ROOF PLAN SCALE: 1 : 50 |
|---|----------------------------|



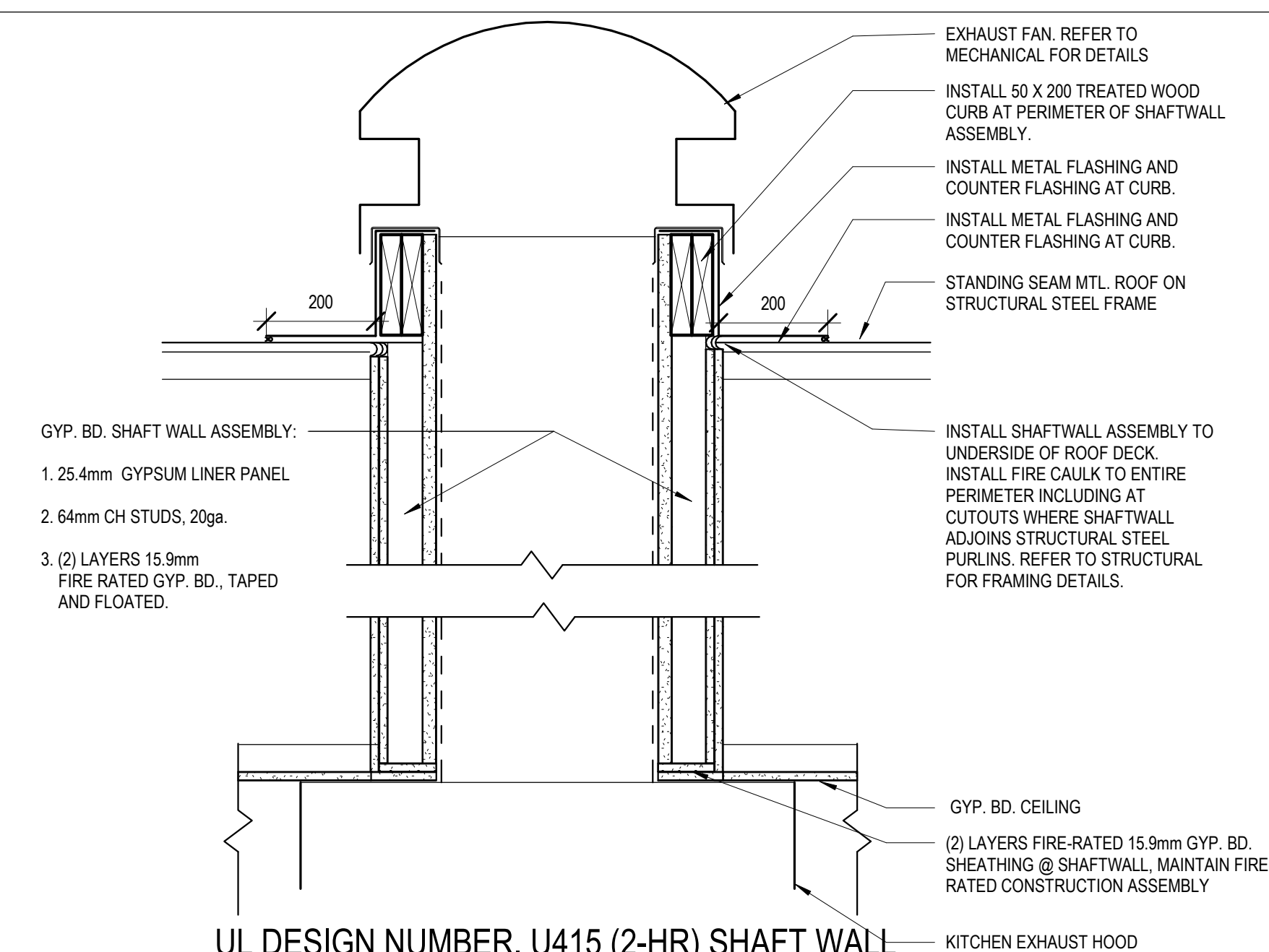
- NOTES:
1. POSITION SQUARE BASED BOOTS IN A DIAMOND ORIENTATION WHERE POSSIBLE TO AID IN DIVERTING WATER.
2. PIPE PENETRATION TO BE IN PAN OF PANEL ONLY.
3. FIELD CUT HOLE IN PANEL 25mm LESS THAN DIA. OF STACK BACK CUT HOLE AND BEND PANEL UP AROUND STACK, SEAL CONTINUOUSLY.
4. IF PANELS ARE 750mm OR LONGER, CUT HOLE TO ALLOW FOR THERMAL MOVEMENT.
5. IF PIPE IS MADE OF METAL, IT MUST BE PAINTED TO PREVENT RUST RUN-OFF FROM STAINING PANELS.

2 SANITARY VENT STACK AT ROOF



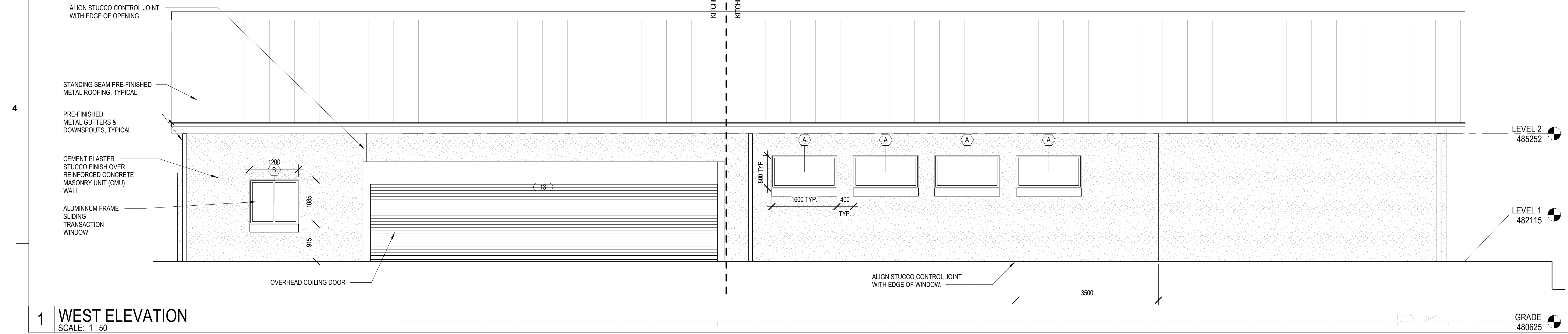
NOTE:
COORDINATE CURB INSTALLATION WITH STRUCTURAL. ALSO, REFER TO
ROOFING MANUFACTURER'S DETAILS AND INSTRUCTIONS FOR MOUNTING
AND ANCHORING TO SUBSTRATE

| | |
|---|----------------------------------|
| 3 | MECHANICAL EQUIPMENT CURB DETAIL |
| | SCALE: 1 : 5 REF: / |

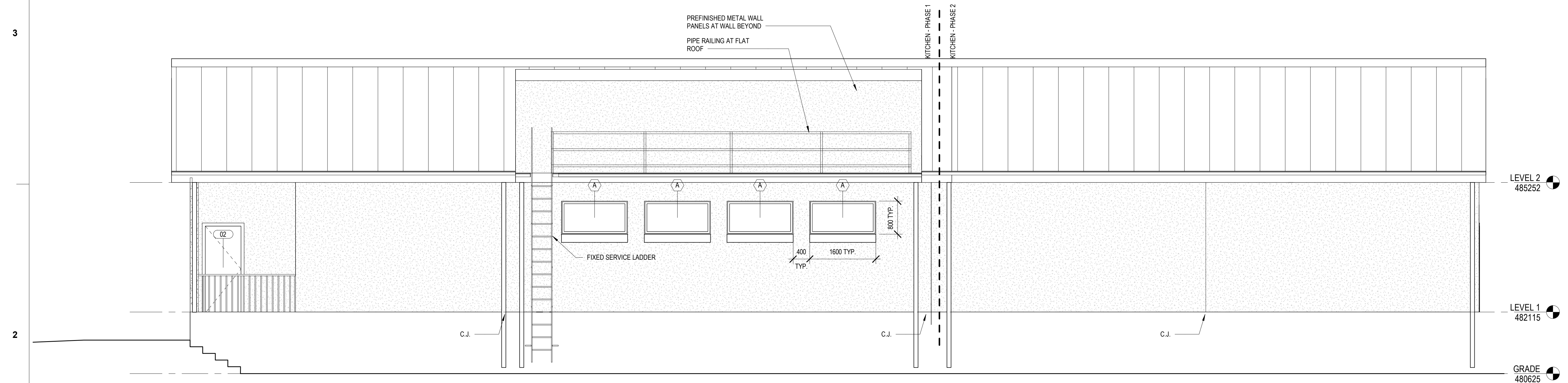


4 2-HR. RATED SHAFT WALL @ KITCHEN EXHAUST FAN
SCALE: 1:10 REF: 1/A2.00

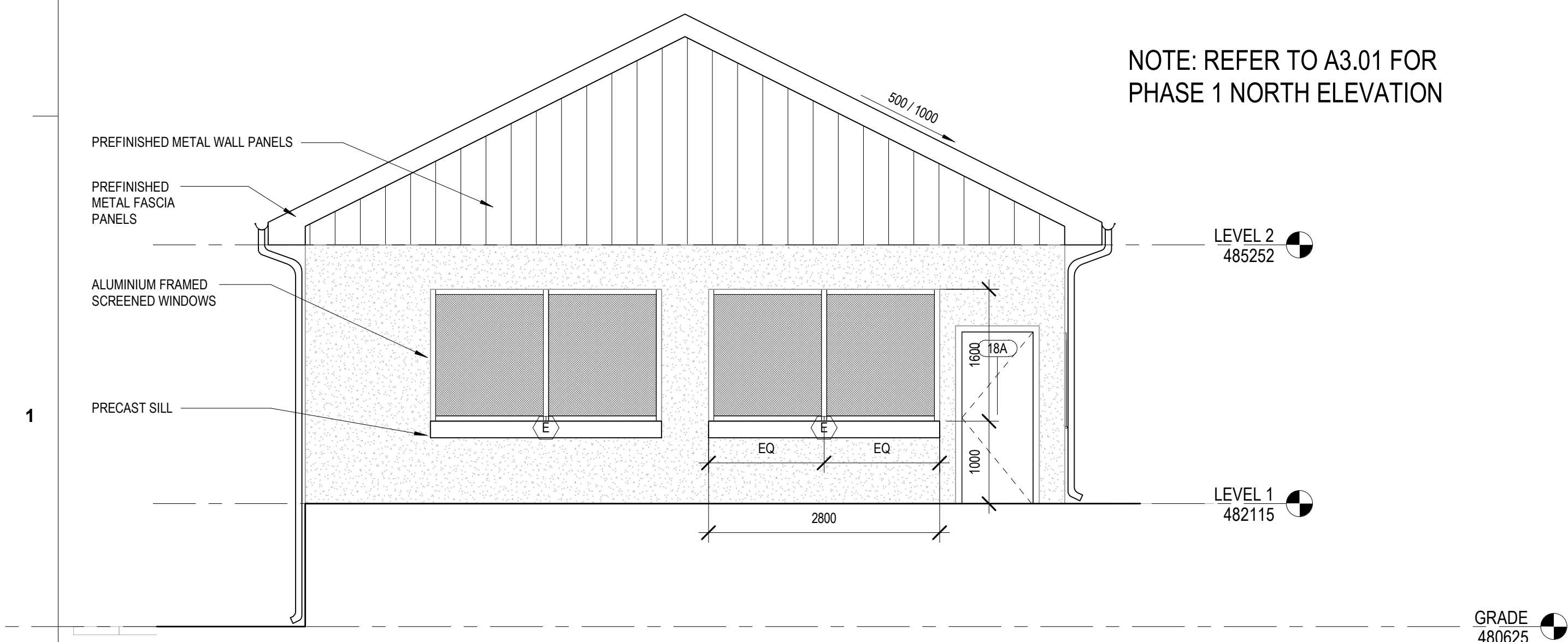
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



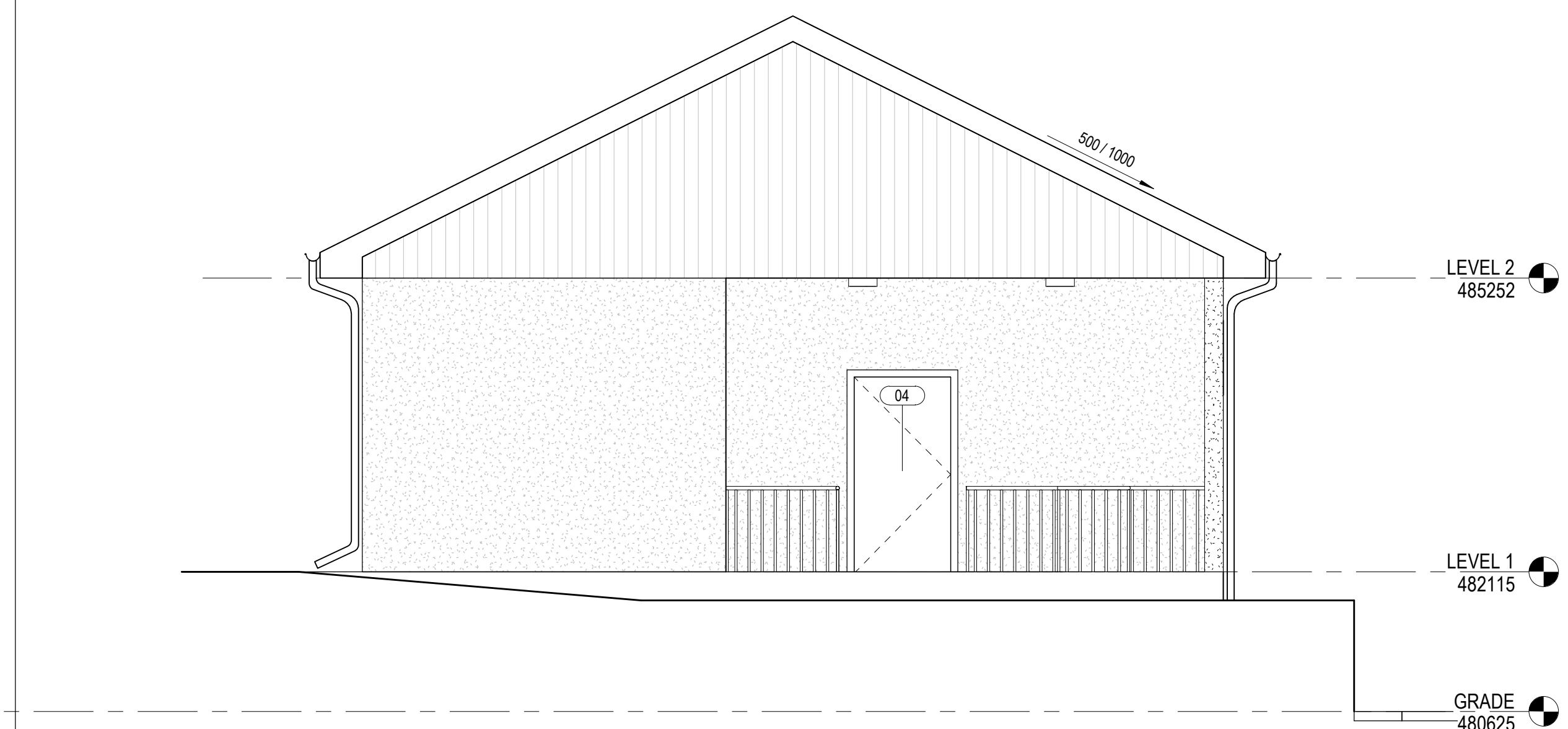
| | |
|---|---------------------------------|
| 1 | WEST ELEVATION SCALE: 1 : 50 |
|---|---------------------------------|



| | |
|---|---------------------------------|
| 2 | EAST ELEVATION SCALE: 1 : 50 |
|---|---------------------------------|



| | |
|---|----------------------------------|
| 3 | NORTH ELEVATION SCALE: 1 : 50 |
|---|----------------------------------|



| | |
|---|--------------------------------|
| 4 | SOUTH ELEVATION SCALE: 1:50 |
|---|--------------------------------|

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|-------------------------|-----------------------------|---|-------------------|
| MC / K/L | Drwg. Code: | File Name: | NOVEMBER 30, 2020 |
| MC / AOB / PSA | | Student: Engineering | |
| | | Student Project: South Sudan RESP | |
| | | NO STUDENT ATTACHED YET | |
| Submitted by: Perez APC | | Plot Date: 9/17/2022 8:18:37 AM | |
| | | Plot Scale: VARIES | |
| | Issued Date: 05/01/2021 | Contract No: | |
| | Deliverable Date: 9/16/2022 | AD-OAH-115-0005 / 12680829/00003 | |

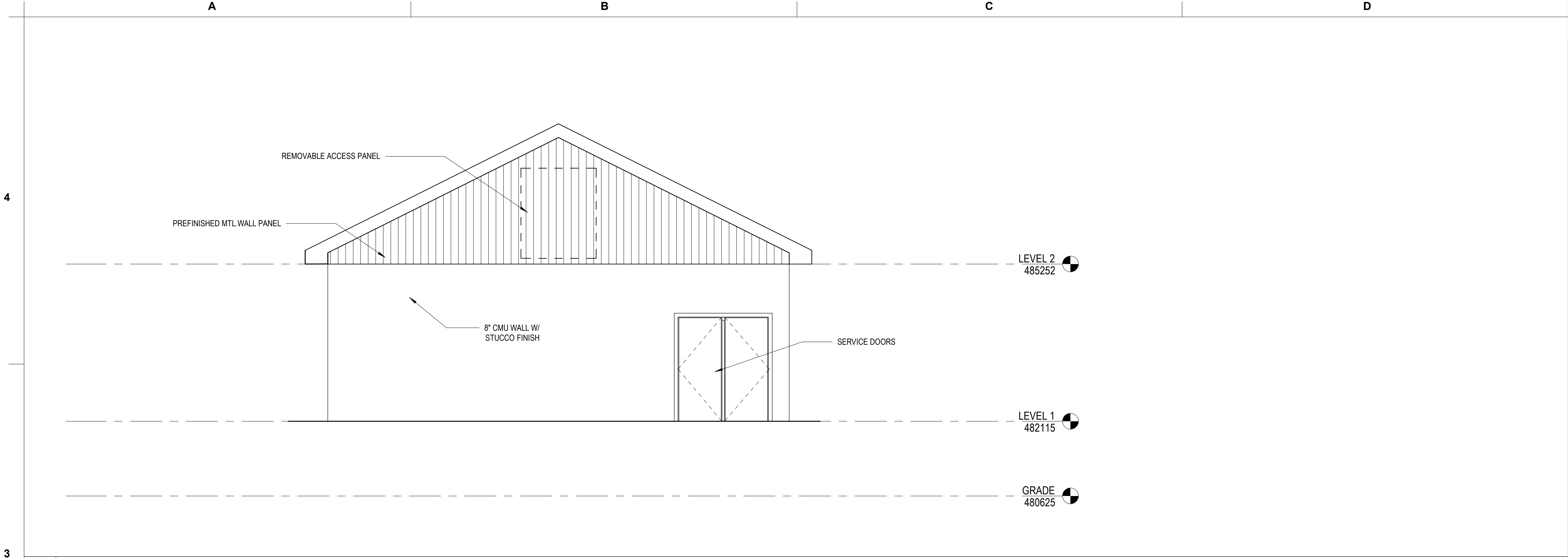
Perez.

U.S.AID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
BUILDING ELEVATIONS

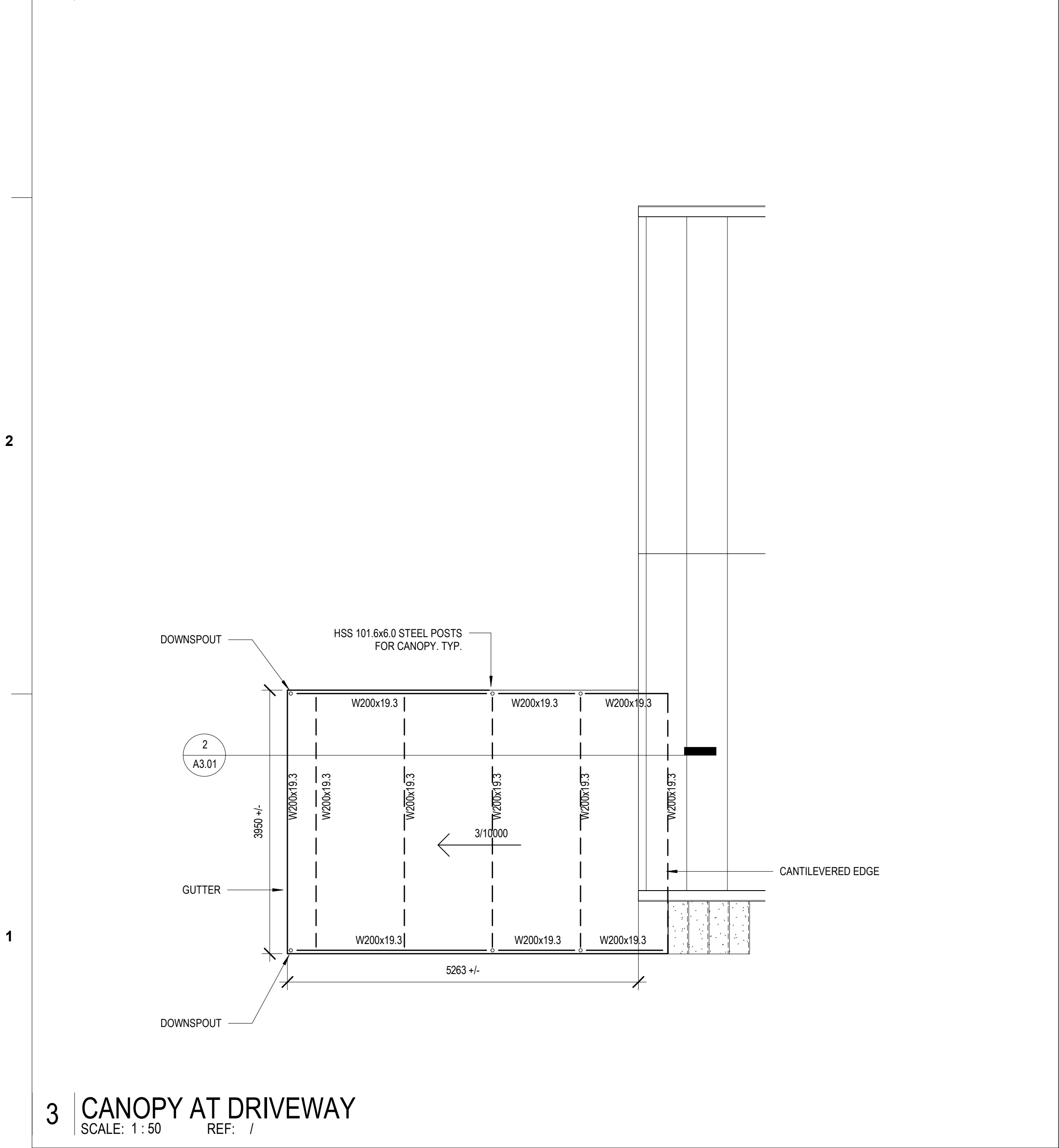
Sheet
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Number

A3.00

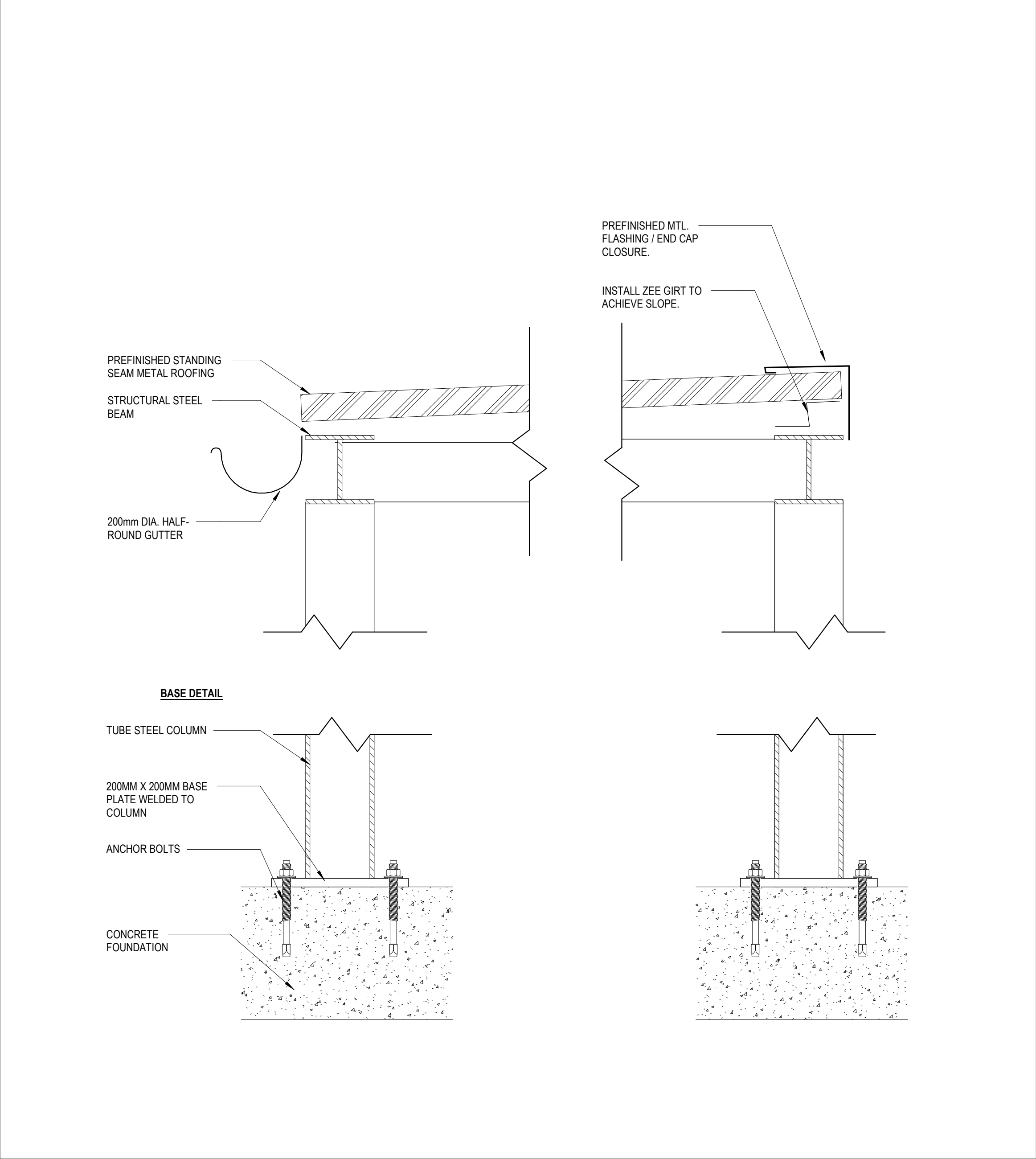
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1 NORTH ELEVATION - PHASE I
SCALE: 1 : 50 REF: 1 / A3.01



3 CANOPY AT DRIVEWAY
SCALE: 1 : 50 REF: /



2 CANOPY DETAIL
SCALE: 1 : 5 REF: 3 / A3.01

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



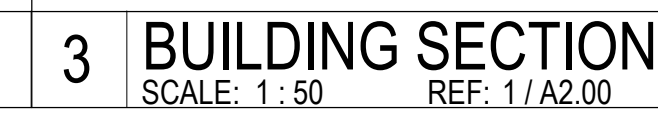
| Symbol | Description | Date | Appr. | Symbol | Description | Date | Appr. |
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| Designed by: Designer | Drawn by: Author | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: Checker | Drwg. Code: | File Name: BIM-300-SUDAN-Engineering-Design-Rev-1.dwg |
| Submitted by: Approver | Plot Scale: VARIES | Plot Date: 9/17/2022 8:18:37 AM |
| Issued Date: 08/23/21 | Contract No: AUC-004-15-00051 / 7268832F/0003 | |
| Deliverable Date: 9/16/2022 | | |



USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
EXTERIOR ELEVATIONS - PHASE 1

Sheet
Reference
Number
A3.01

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|--------------------------------|----------------------------------|--|
| Designed by: MC / KJL | Drawn by: KJL | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: MC / AOB / PSA | Drwg. Code: | File Name: BIM-3D-USAID_Esperanza Smart Program - South Sudan 3D-USAID-CONTRACT |
| Submitted by: Perez APC | Plot Date: 9/17/2022 | 16:38 AM |
| | Plot Scale: | VARIABLES |
| Issued Date: 05/01/2021 | Contract No: AD-OAA-I-15-0001 | 17 2068262-00003 |
| Deliverable Date: 9/16/2021 | | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
BUILDING SECTIONS

Sheet
Reference
Number

A4.00

CLIN 0002

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FINISH SCHEDULE

| NO. | NAME | FLR. FIN. | BASE FIN. | WALL FINISH | | | | CLG. FIN. | REMARKS |
|-----|-----------------------------|-----------|-------------|-------------|-------------|-------------|-------------|-----------|--|
| | | | | NORTH | EAST | SOUTH | WEST | | |
| 01 | DOCK | CONC | WB-1 | | | | | | |
| 02 | TRASH | CONC | SEE REMARKS | PT-1 | PT-1 | PT-1 | PT-1 | C-1 | GROUT OR CAULK TIGHT WALL AND FLOOR JOINT |
| 03 | MECH/ELEC | CONC | SEE REMARKS | PT-1 | PT-1 | PT-1 | PT-1 | C-1 | GROUT OR CAULK TIGHT WALL AND FLOOR JOINT |
| 04 | CORRIDOR | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | INSTALL 8' WP-1 PANEL. EXPOSED WALL ABOVE TO BE PT-1 |
| 05 | DRY STORAGE | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 06 | COOLER | FL-1 | WB-1 | PT-1 | PT-1 | PT-1 | PT-1 | C-1 | PAINT WALLS SURROUNDING COOLER. INSTALL WP-1 AT COOLER EDGE |
| 07 | FREEZER | FL-1 | WB-1 | PT-1 | PT-1 | PT-1 | PT-1 | C-1 | PAINT WALLS SURROUNDING FREEZER. INSTALL WP-1 AT FREEZER EDGE |
| 08 | PREP PANTRY | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 09 | COOK EXPEDITE | FL-1 | WB-1 | WP-1 / PT-1 | SEE REMARKS | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | INSTALL STAINLESS STEEL PANEL FULL LENGTH OF HOOD FROM COOKLINE SURFACE TO UNDERSIDE OF HOOD |
| 10 | WAREWASH | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 11 | TEMP SERVERY / WAIT STATION | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 12 | BAKERY | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 13 | SERVEDRY / WAIT STATION | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 14 | CORRIDOR | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 15 | JANITOR | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 16 | STORAGE | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 17 | CORRIDOR | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | |
| 18 | BBQ | FL-1 | WB-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | WP-1 / PT-1 | C-1 | INSTALL STAINLESS STEEL PANEL FULL LENGTH OF HOOD FROM COOKLINE SURFACE TO UNDERSIDE OF HOOD |

FINISH LEGEND

| | | | |
|------|--|--|---|
| C-1 | Matt: Mfr: Style: Model: Color: Dimen: | GYP. BRD - PAINTED CEILING PPG PPG1001 - 1 DELICATE WHITE | REMARKS: 1. CEILING - FLAT FINISH |
| WP-1 | Matt: Mfr: Style: Model: Color: Dimen: | FIBERGLASS REINFORCED PANEL MARLITE STANDARD SEE REMARKS 4' X 8' | REMARKS: 1. PROVIDE ALL TRIMS 2. CLASS A 2. SELECT FROM MFR FULL RANGE OF STANDARD COLORS |
| PT-1 | Matt: Mfr: Color: | LATEX PAINT - GENERAL PPG PPG1001-1 DELICATE WHITE | REMARKS: 1. WALLS - EGGSHELL FINISH |

FINISH LEGEND

| | | | |
|------|--|--|---|
| FL-1 | Matt: Mfr: Style: Model: Color: Dimen: | QUARTZ EPOXY FLOORING SILIKAL KITCHEN SYSTEM SEE REMARKS | REMARKS: 1. SELECT FROM FULL RANGE OF STANDARD COLORS |
| WB-1 | Matt: Mfr: Style: Model: Color: Dimen: | EPOXY WALL BASE SILIKAL KITCHEN SYSTEM MATCH FL-1 6" | REMARKS: 1. INTEGRAL WALL BASE WITH FLOORING |

NOTE: REFER TO A5.10 FOR TYPICAL WINDOW DETAILS

1550

629

A

1220

1200

B

WINDOW TYPES

SCALE: 1 : 20

1

2

3

4

1

2

3

4

DOOR AND FRAME TYPES

SCALE: NTS

1

2

3

4

1

2

3

4

1

2

3

4

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DOOR SCHEDULE

| DOOR IDENTIFICATION | | | EXTERIOR | PANEL CONSTRUCTION | | | FRAME CONSTRUCTION | | FIRE RATING | HARDWARE | REMARKS |
|---------------------|-------|--------|----------|--------------------|----------|--------|--------------------|--------|-------------|----------|--|
| NO. | WIDTH | HEIGHT | | TYPE | MATERIAL | FINISH | MATERIAL | FINISH | | | |
| 02 | 900 | 2100 | EXT | A | MTL | PT | MTL | PT | | 2.0 | |
| 03 | 900 | 2100 | | A | MTL | PT | MTL | PT | | 2.0 | |
| 04 | 1070 | 2100 | EXT | A | MTL | PT | MTL | PT | | 1.0 | |
| 05 | 900 | 2100 | | A | MTL | PT | MTL | PT | | 4.0 | |
| 11 | 1838 | 2100 | | D | MTL | PT | MTL | PT | | 5.0 | |
| 12A | 900 | 2100 | | B | MTL | PT | MTL | PT | | 3.0 | |
| 12B | 900 | 2100 | | C | ALUM | ALUM | ALUM | ALUM | | | DOUBLE ACTING SERVICE DOOR OVERHEAD DOOR |
| 13 | 8526 | 2450 | | | MTL | PT | MTL | PT | | | |
| 14 | 900 | 2100 | | A | MTL | PT | MTL | PT | | 2.0 | |
| 15 | 900 | 2100 | | A | MTL | PT | MTL | PT | | 4.0 | |
| 16A | 900 | 2100 | | A | MTL | PT | MTL | PT | | 4.0 | |
| 16B | 900 | 2100 | | A | MTL | PT | MTL | PT | | 4.0 | |
| 17 | 900 | 2100 | | C | ALUM | ALUM | ALUM | ALUM | | | DOUBLE ACTING SERVICE DOOR |
| 18A | 900 | 2100 | EXT | A | MTL | PT | MTL | PT | | 1.0 | |
| 18B | 900 | 2100 | | B | MTL | PT | MTL | PT | | 3.0 | |
| 18C | 900 | 2100 | EXT | B | MTL | PT | MTL | PT | | 3.0 | |

PT = PAINT
MTL = METAL
ALUM = ALUMINUM

Hardware Schedule

SET 1.0 - ENTRY
-LEVER / LOCKSET
-CLOSER
-HINGES
-THRESHOLD
-RAIN GUARD
-GASKETING
-SWEEP

SET 2.0 - STOREROOM
-LEVER / LOCKSET
-CLOSER
-HINGES
-KICKPLATE

SET 3.0 - PASSAGE
-LEVER/LOCKSET
-HINGES
-KICKPLATE

SET 4.0 - CLOSET
-LEVER (DUMMY)
-(3) HINGES
-FRICTION LATCH
-KICKPLATE

SET 5.0 - SERVICE
-PUSH PLATE
-DEADBOLT
-HINGES
-KICKPLATE

A

B

C

D

AA

BB

CC

NOTE:

-PROVIDE KNOCK DOWN FRAMES

1

2

3

4

1

2

3

4

USAID

INTERNATIONAL DEVELOPMENT USAID

Contract Date: NOVEMBER 30, 2020

File Name: 1846-000-USAID Engineering Support Program

Drawn by: K/L

Drwg. Code: MC / AOB / PSA

Submitted by: Perez APC

Plot Date: 9/17/2022 8:16:39 AM

Plot Scale: VARIES

Contract No: AUC-0044-15-00051 / 7268625F/0003

Deliverable Date: 9/16/2022

USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM

ISSUE FOR CONSTRUCTION REV. 2

DOOR SCHEDULE, FINISH SCHEDULE & DETAILS

Sheet Reference Number

A5.00

CLIN 0002

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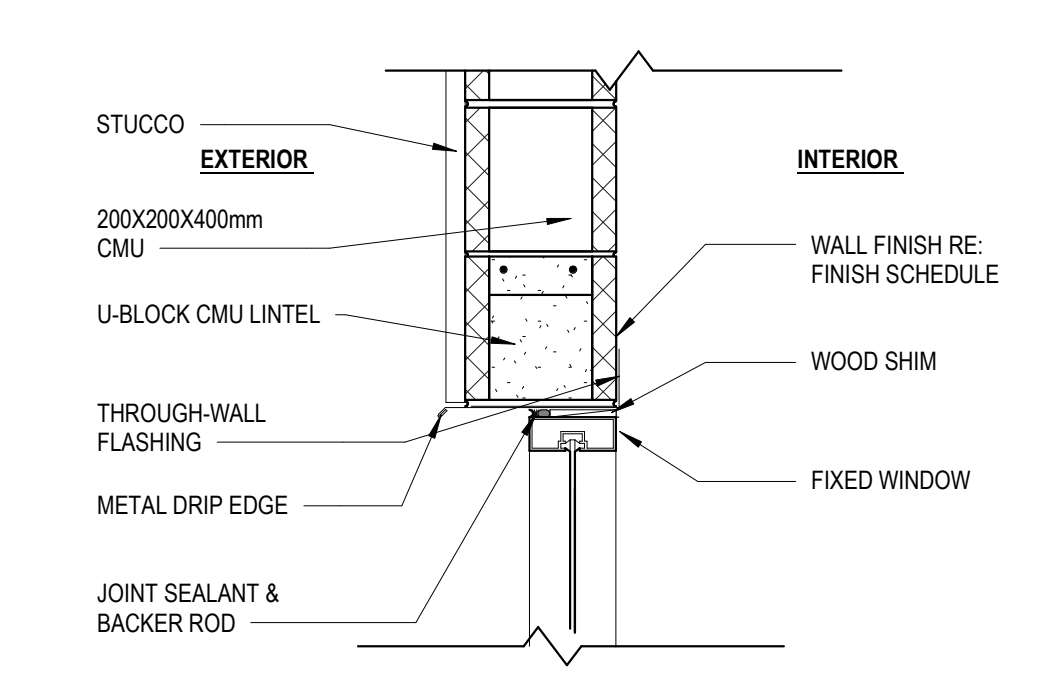
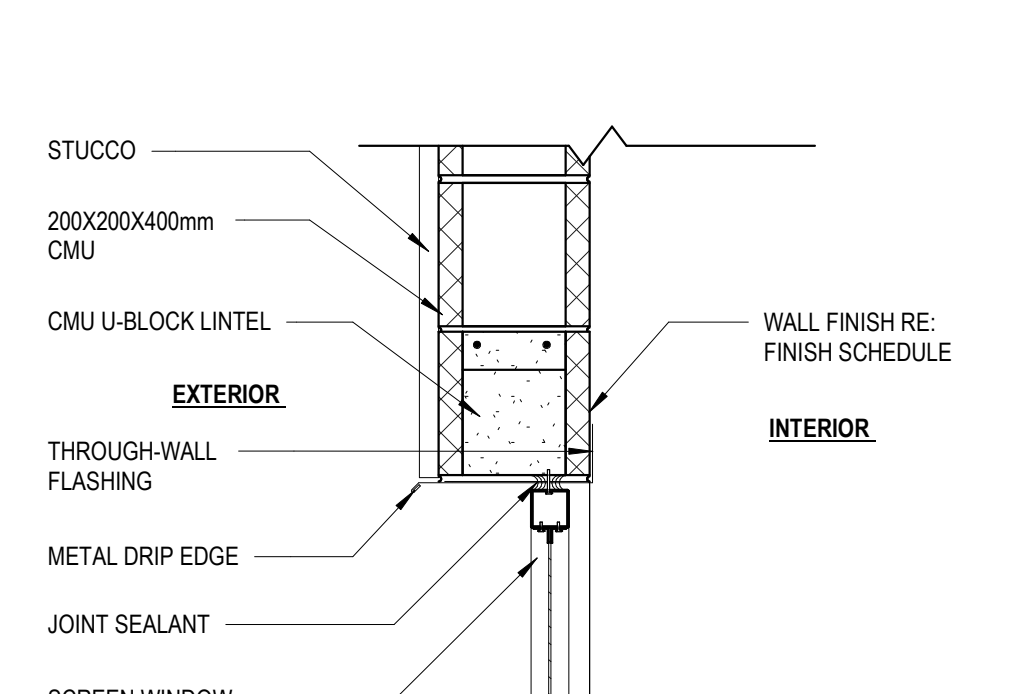
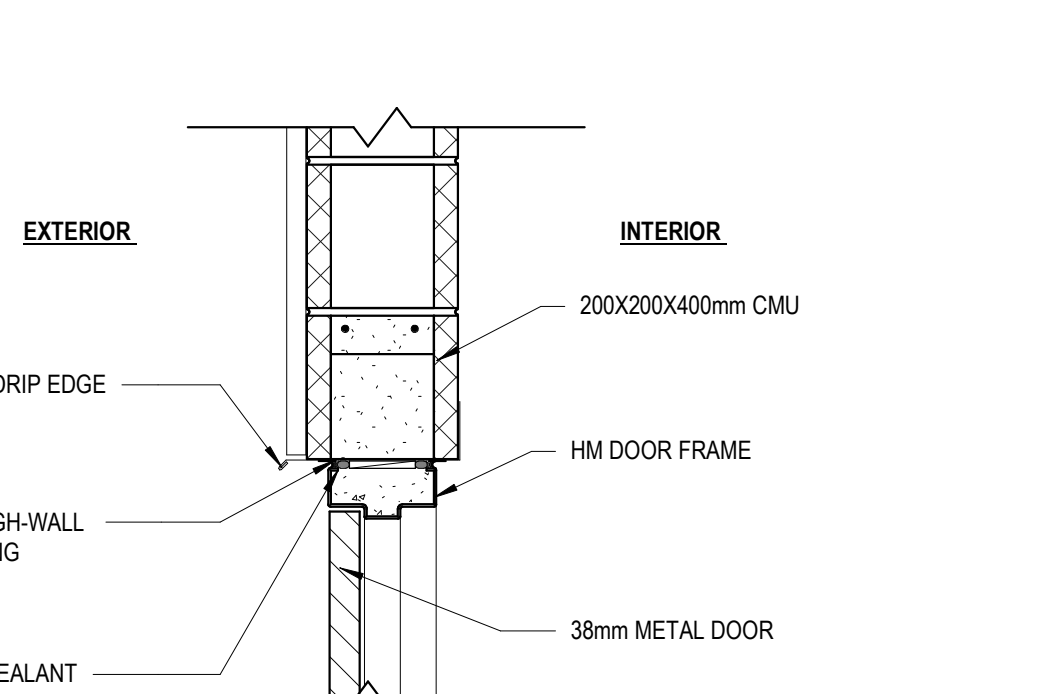
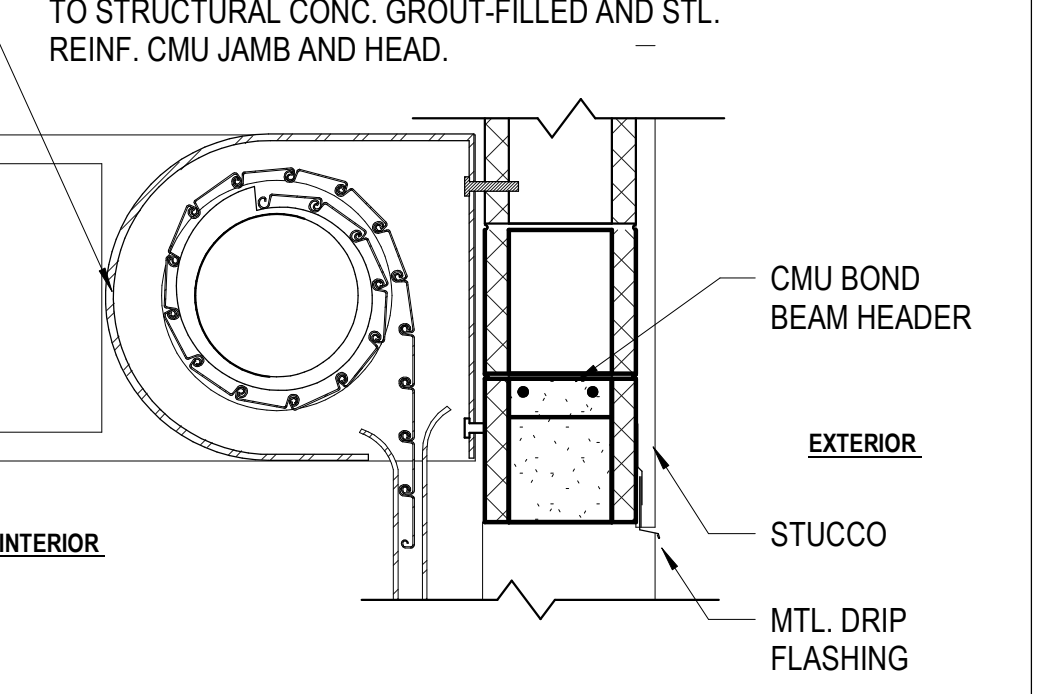
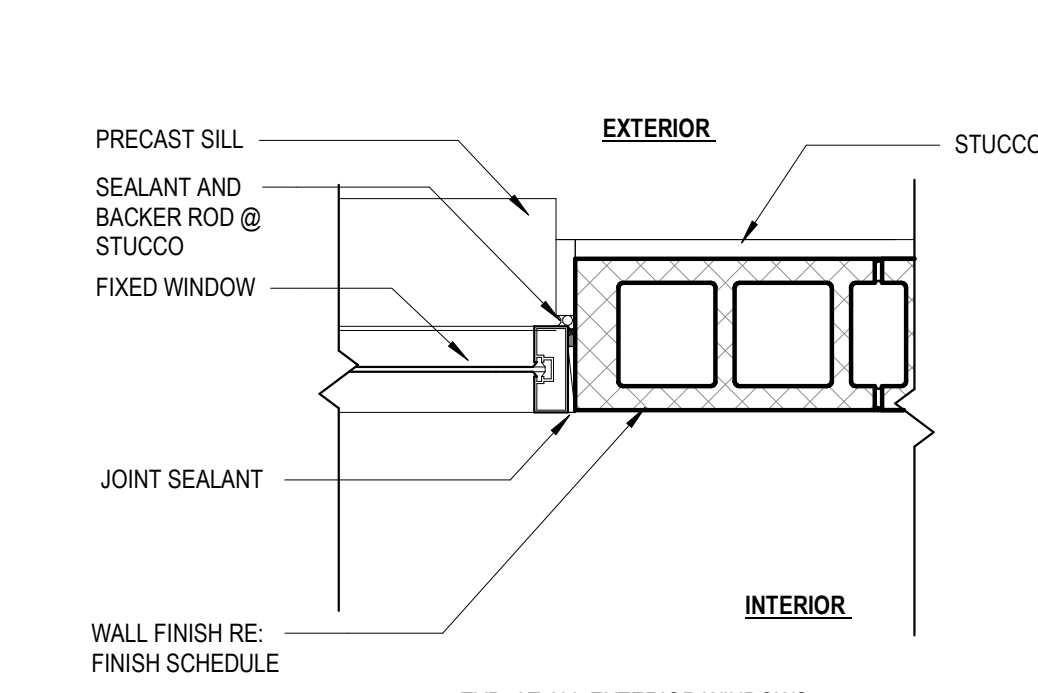
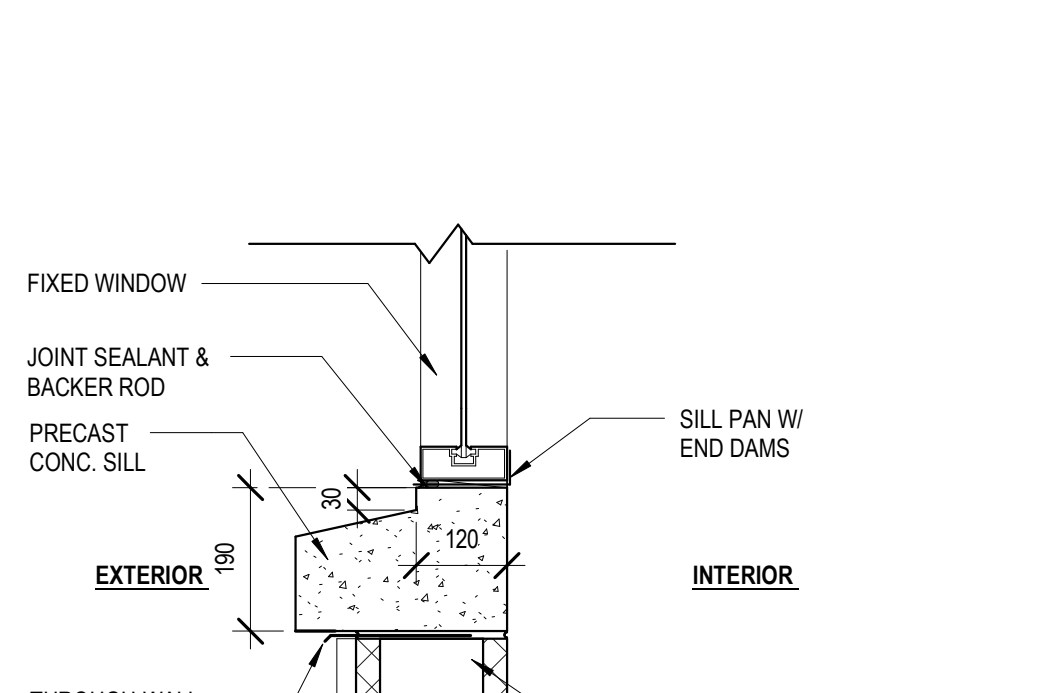
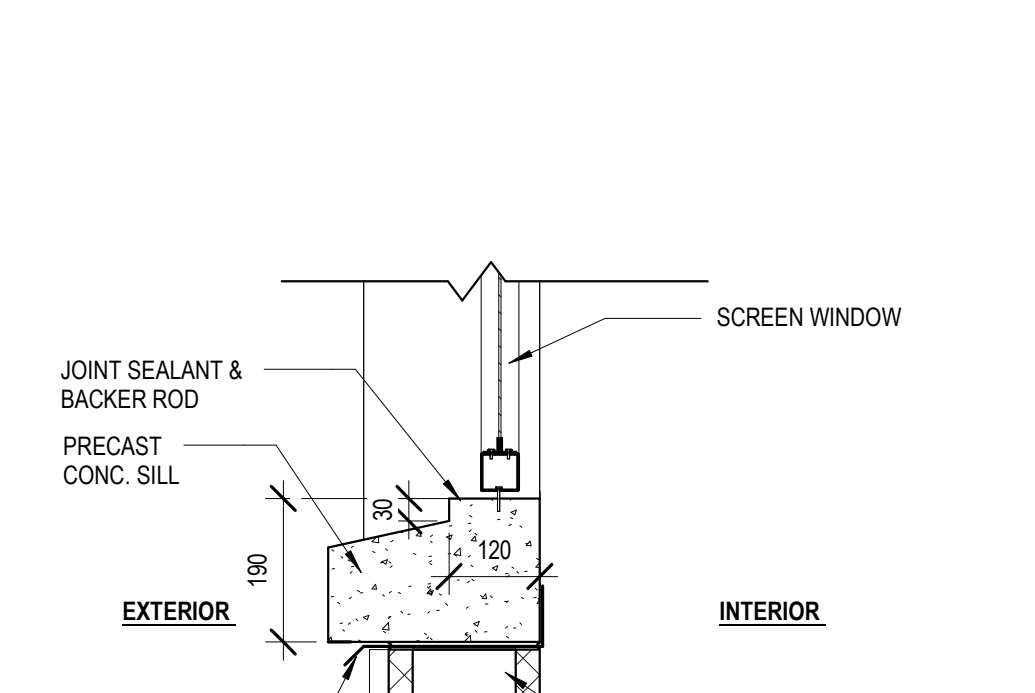
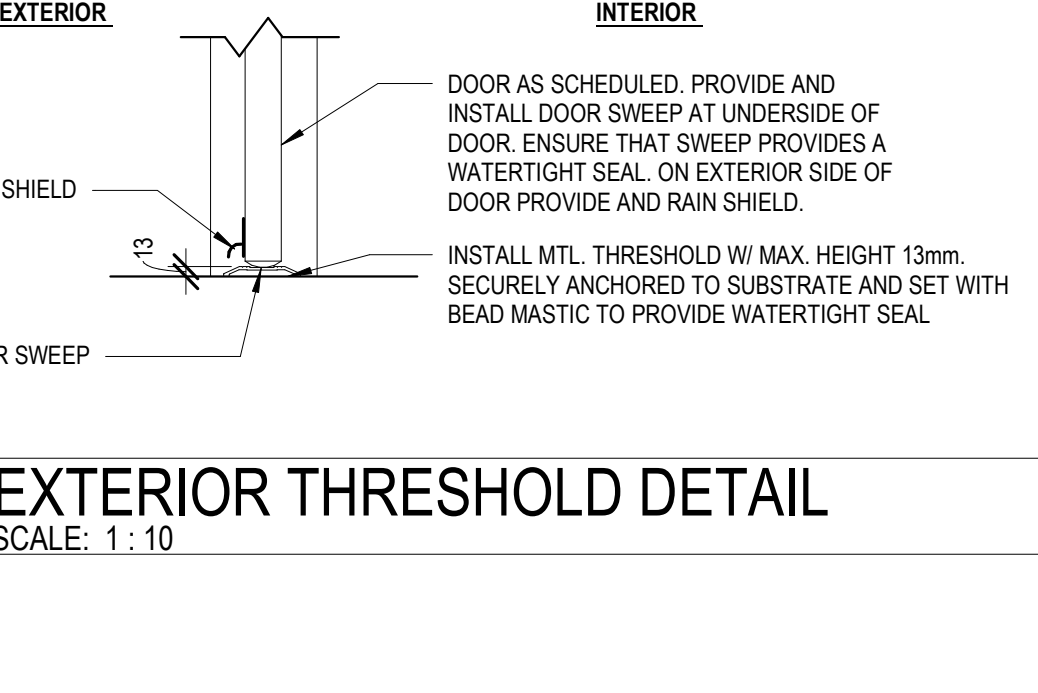
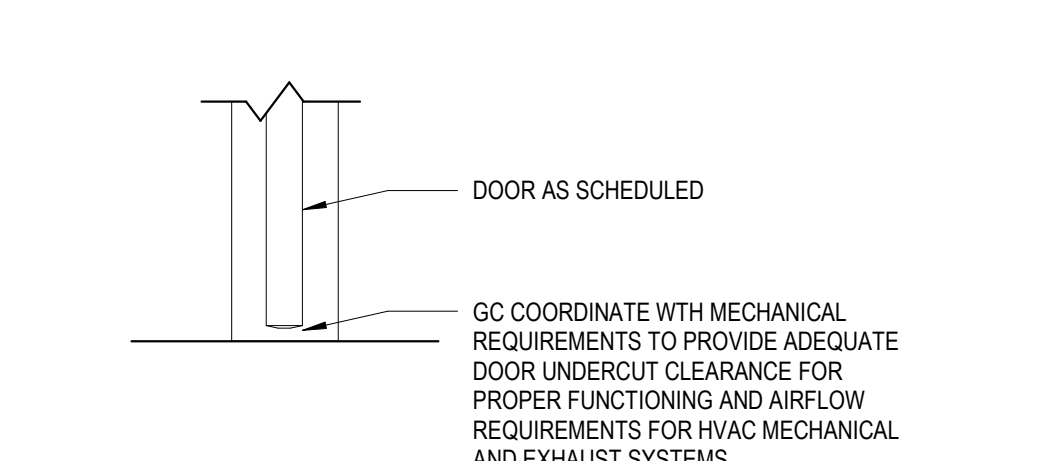
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| | <div><div>A</div><div><p>STUCCO EXTERIOR 200X200X400mm CMU U-BLOCK CMU LINTEL THROUGH-WALL FLASHING METAL DRIP EDGE JOINT SEALANT & BACKER ROD WALL FINISH RE: FINISH SCHEDULE WOOD SHIM FIXED WINDOW</p><p>TYP. AT ALL EXTERIOR WINDOWS</p></div><div><div>B</div><div><p>STUCCO EXTERIOR 200X200X400mm CMU CMU U-BLOCK LINTEL THROUGH-WALL FLASHING METAL DRIP EDGE JOINT SEALANT SCREEN WINDOW WALL FINISH RE: FINISH SCHEDULE INTERIOR</p><p>TYP. AT ALL EXTERIOR SCREEN WINDOWS</p></div><div><div>C</div><div><p>EXTERIOR METAL DRIP EDGE THROUGH-WALL FLASHING JOINT SEALANT 200X200X400mm CMU HM DOOR FRAME 38mm METAL DOOR INTERIOR</p><p>EXTERIOR METAL HEAD DOOR (INTERIOR METAL DOOR HEAD SIMILAR)</p></div><div><div>D</div><div><p>MANUAL OPERATION OVERHEAD COILING DOOR & ENCLOSURE HOUSING. COORDINATE WITH STRUCTURAL FOR MOUNTING DOOR AND TRACK AT JAMBS AND U-BLOCK LINTEL/BOND BEAM. REFER TO STRUCTURAL CONC. GROUT-FILLED AND STL. REINF. CMU JAMB AND HEAD.</p><p>CMU BOND BEAM HEADER STUCCO MTL. DRIP FLASHING EXTERIOR INTERIOR</p><p>NOTE: REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION REQUIREMENTS.</p></div></div><div><div>1</div><div>HEAD DETAIL - WINDOW</div><div>SCALE: 1 : 10</div></div><div><div>2</div><div>HEAD DETAIL - SCREEN WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>3</div><div>HEAD DETAIL - MTL. DOOR</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>4</div><div>HEAD DEATAIL - COILING DOOR</div><div>SCALE: 1 : 10</div><div>REF: 2 / A1.00</div></div></div></div></div> | <div><div>3</div><div><p>PRECAST SILL SEALANT AND BACKER ROD @ STUCCO FIXED WINDOW JOINT SEALANT WALL FINISH RE: FINISH SCHEDULE EXTERIOR STUCCO INTERIOR</p><p>TYP. AT ALL EXTERIOR WINDOWS</p></div><div><div>6</div><div>JAMB DETAIL-SCREEN WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>7</div><div>JAMB DETAIL -MTL. DOOR</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>8</div><div>JAMB DETAIL - COILING DOOR</div><div>SCALE: 1 : 10</div><div>REF: /</div></div></div> <div><div>5</div><div>JAMB DETAIL - WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div> <div><div>6</div><div>JAMB DETAIL-SCREEN WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div> <div><div>7</div><div>JAMB DETAIL -MTL. DOOR</div><div>SCALE: 1 : 10</div><div>REF: /</div></div> <div><div>8</div><div>JAMB DETAIL - COILING DOOR</div><div>SCALE: 1 : 10</div><div>REF: /</div></div> | <div><div>1</div><div><p>FIXED WINDOW JOINT SEALANT & BACKER ROD PRECAST CONC. SILL THROUGH-WALL MTL. FLASHING STUCCO SILL PAN W/ END DAMS 200X200X400mm CMU EXTERIOR INTERIOR</p><p>TYP. AT ALL EXTERIOR WINDOWS</p></div><div><div>9</div><div>SILL DETAIL -WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>2</div><div><p>JOINT SEALANT & BACKER ROD PRECAST CONC. SILL THROUGH-WALL MTL. FLASHING STUCCO SCREEN WINDOW 200X200X400mm CMU EXTERIOR INTERIOR</p><p>TYP. AT ALL EXTERIOR SCREEN WINDOWS</p></div><div><div>10</div><div>SILL DETAIL - SCREEN WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>3</div><div><p>EXTERIOR RAIN SHIELD DOOR SWEEP DOOR AS SCHEDULED INTERIOR DOOR AS SCHEDULED GC COORDINATE WITH MECHANICAL REQUIREMENTS TO PROVIDE ADEQUATE DOOR UNDERCUT CLEARANCE FOR PROPER FUNCTIONING AND AIRFLOW REQUIREMENTS FOR HVAC MECHANICAL AND EXHAUST SYSTEMS.</p></div><div><div>11</div><div>EXTERIOR THRESHOLD DETAIL</div><div>SCALE: 1 : 10</div></div><div><div>4</div><div><p>DOOR AS SCHEDULED GC COORDINATE WITH MECHANICAL REQUIREMENTS TO PROVIDE ADEQUATE DOOR UNDERCUT CLEARANCE FOR PROPER FUNCTIONING AND AIRFLOW REQUIREMENTS FOR HVAC MECHANICAL AND EXHAUST SYSTEMS.</p></div><div><div>12</div><div>INTERIOR THRESHOLD DETAIL</div><div>SCALE: 1 : 10</div></div></div></div><div><div>9</div><div>SILL DETAIL -WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>10</div><div>SILL DETAIL - SCREEN WINDOW</div><div>SCALE: 1 : 10</div><div>REF: /</div></div><div><div>12</div><div>INTERIOR THRESHOLD DETAIL</div><div>SCALE: 1 : 10</div></div></div></div> | <div><div>NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.</div><div><div>GENERAL NOTES: WINDOWS DETAILS</div><div><ol style="list-style-type: none">ALL GLAZING, DOORS, AND FRAMES AT EXTERIOR DOORS TO BE IMPACT RATED.WHEN REQUIRED, SHIMS SHALL BE INSTALLED IN A MANNER SUFFICIENT IN NUMBER TO MINIMIZE DEFLECTION, DISTORTION, OR ROTATION OF THE FRAME TO ACHIEVE PROPER COORDINATION OF THE FENESTRATION PRODUCTS, OR AS RECOMMENDED PER THE MANUFACTURER. DO NOT PROVIDE EXCESS SHIMS. PRODUCTS SHALL NOT BE RACKED MORE THAN 1/8" OUT OF PLUMB FOR DIMENSIONS UP TO 4' OR MORE THAN 3/16" FOR DIMENSIONS GREATER THAN 4'. RE: MANUFACTURER'S INSTRUCTIONS FOR UNIT SHIMMING REQUIREMENTS.INSTALLATION OF FASTENERS OR FASTENING SYSTEMS SHALL NOT CAUSE EXCESSIVE DISTORTION +/- 1/16" OF ANY FRAME OR SASH MEMBER, NOR IN ANY WAY IMPEDE THE OPERATION OF THE UNIT.THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY COORDINATION OF TRADES AND PROPER CONSTRUCTION SEQUENCING OF THE INSTALLED FENESTRATION PRODUCTS. CAREFULLY INSTALL FENESTRATION PRODUCTS AND THEIR RESPECTIVE ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS TO PREVENT EXCESSIVE CONDENSATION AND AIR, WATER, AND SOUND LEAKAGE.TO PROVIDE ADEQUATE PROTECTION AGAINST GALVANIC CORROSION, USE ONLY FASTENERS THAT ARE COMPATIBLE WITH THE MATERIALS JOINED AND THAT WILL NOT RESULT IN GALVANIC CORROSION.FASTENER LENGTH SHALL BE SUFFICIENT TO PENETRATE THE SUBSTRATE TO A DEPTH ACCEPTABLE TO APPLICABLE BUILDING CODES, MANUFACTURER'S RECOMMENDATIONS, AND STRUCTURAL CALCULATIONS. NUMBER AND SPACING SHALL BE SUFFICIENT TO MEET LOADS. THE INSTALLATION OF FASTENERS OR FASTENING SYSTEMS SHALL NOT CAUSE EXCESSIVE DISTORTION (+/- 1/16") OF ANY FRAME OR SASH MEMBER, NOR IN ANY WAY IMPEDE THE OPERATION OF THE UNIT. ANCHORING OF WINDOW PRODUCTS SHALL ALWAYS BE DONE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.</div></div><div><div>GENERAL NOTES: DOOR DETAILS</div><div><ol style="list-style-type: none">THE EFFECTIVE PERFORMANCE OF INSTALLED FENESTRATION PRODUCTS IS DEPENDENT IN PART UPON FOLLOWING PROPER INSTALLATION PROCEDURES AND APPROPRIATE WORKMANSHIP. THE COORDINATION OF TRADES AND PROPER SEQUENCING ARE ESSENTIAL FOR EFFECTIVE FENESTRATION INSTALLATION. THE GENERAL ONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY COORDINATION OF TRADES AND PROPER CONSTRUCTION SEQUENCING OF THE INSTALLED FENESTRATION PRODUCTS. IMPROPER INSTALLATION OF OPENINGS CONTRIBUTES TO EXCESSIVE AIR, WATER, AND SOUND LEAKAGE, AND CONDENSATION, WHICH MAY PROMOTE THE DETERIORATION OF WALL CONSTRUCTIONS, INSULATION. CAREFULLY INSTALL FENESTRATION PRODUCTS AND THEIR RESPECTIVE ACCESSORIES.TO PROVIDE ADEQUATE PROTECTION AGAINST GALVANIC CORROSION, USE ONLY FASTENERS THAT ARE COMPATIBLE WITH THE MATERIALS JOINED AND THAT WILL NOT RESULT IN GALVANIC CORROSION.FASTENER LENGTH SHALL BE SUFFICIENT TO PENETRATE THE SUBSTRATE TO A DEPTH ACCEPTABLE TO APPLICABLE BUILDING CODES, MANUFACTURER'S RECOMMENDATIONS, AND STRUCTURAL CALCULATIONS. NUMBER AND SPACING SHALL BE SUFFICIENT TO MEET LOADS. THE INSTALLATION OF FASTENERS OR FASTENING SYSTEMS SHALL NOT CAUSE EXCESSIVE DISTORTION (+/- 1/16") OF ANY FRAME OR SASH MEMBER, NOR IN ANY WAY IMPEDE THE OPERATION OF THE UNIT. ANCHORING OF DOOR PRODUCTS SHALL ALWAYS BE DONE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT WITH BEVELED EDGE. 1/4" THRESHOLDS DO NOT REQUIRE BEVELED EDGE.COMMON AREA EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE REQUIRING NO KEY, SPECIAL KNOWLEDGE OR EFFORT.CONTRACTOR TO FIELD VERIFY ALL DOOR FRAME AND THROAT DEPTHS PRIOR TO PROVIDING THE DOOR / FRAME SUBMITTAL.LOCATE HINGE SIDE OF ALL INTERIOR DOOR OPENINGS 200MM FROM ADJACENT PERPENDICULAR WALL, UNO.FLOOR MATERIAL CHANGES BETWEEN ROOMS TO OCCUR UNDER DOORS WITH TRANSITION STRIPS / THRESHOLDS AS INDICATED IN DETAILS.RE: SPECS FOR DOOR HARDWARE.</div></div><div><div>QUALITY ASSURANCE NOTES:</div><div><ol style="list-style-type: none">UPON COMPLETION ON PHASE 1 WORK THE GC SHALL TAKE SUFFICIENT MEASURES TO PROTECT FINISHED WORK, DOORS ETC. INSTALLED BUT NOT YET IN USE. AT DOOR . AT DOORS11, 12A &17, FOR INSTANCE, DURING PHASE 2 WORK, THESE DOORS MAY BE HELD IN STORAGE WITH PLYWOOD INSTALLED UNTIL WORK IS COMPLETED.GC TO COORDINATE WITH STRUCTURAL TO CORRECTLY INSTALL ALL CMU CONSTRUCTION, CMU STEEL REINFORCEMENT HORIZ & VERT. RE-BAR, CONCRETE GROUT-FILLED CELLS, STRUCTURAL LINTELS, BOND BEAMS/U-BLOCK HEADERS. GC TO FOLLOW DETAILS PROVIDED ON STRUCTURAL SHEETS. THESE STRUCTURAL DETAILS TAKE PRECEDENCE. GC TO INFORM OWNER OF ANY CONFLICTS DURING BIDDING.</div></div></div> | <div><div>USAID</div><div>UNITED STATES AGENCY INTERNATIONAL DEVELOPMENT USAID</div><div>Contract Date: NOVEMBER 30, 2020 File Name: 100-300-USAID Engineering Support Program 100-300-USAID Engineering Support Program 100-300-USAID Engineering Support Program</div><div>Designed by: K/L MC / K/L Drawn by: K/L MC / AOB / PSA Drwg. Code: Submitted by: Perez APC Plot Date: 9/17/2022 8:16:39 AM Issued Date: 07/23/2021 Deliverable Date: 9/16/2022</div><div>Plot Scale: VARIES Contract No: AID-OAA-15-00051 / 7268262F/6003</div><div>USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM ISSUE FOR CONSTRUCTION REV. 2 OPENING DETAILS</div><div>Sheet Reference Number A5.10</div><div>CLIN 0002</div></div> |
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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



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GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MEP DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2018 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THIS GOVERNING CODE.

2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNERS REVIEW.

3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.

4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

FFOUNDATIONS

1. BUILDING FOUNDATIONS SHALL BEAR ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF 400 KPA AS SPECIFIED BY THE GEOTECHNICAL ENGINEERING REPORT FROM LIBERTY ENGINEERING AND CONSTRUCTION LIMITED DATED 10TH MARCH 2021. ADEQUACY OF BEARING STRATUM SHALL BE VERIFIED IN FIELD PRIOR TO PLACING CONCRETE. ALL NECESSARY ADJUSTMENTS TO THE BOTTOM OF FOOTINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SEE SLAB SCHEDULE FOR AREAS REQUIRING COMPACTED SUBGRADE

2. DO NOT PLACE BACKFILL AGAINST BASEMENT WALLS UNTIL ALL FLOORS BRACING THESE WALLS ARE IN PLACE AND HAVE ATTAINED THEIR 28-DAY STRENGTH.

3. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 1M BELOW FINAL GRADE.

4. CONCRETE SHALL BE POURED IN DRY EXCAVATIONS. CONTRACTOR SHALL NOTE SOIL AND WATER CONDITIONS AS SHOWN BY BORINGS INCLUDED IN THE REFERENCED GEOTECHNICAL SURFACE INVESTIGATION REPORT(S) AND DEPTHS OF FOOTING AS SHOWN ON FOUNDATION PLANS.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:

A. AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)

B. ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION

C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"

2. ALL CONCRETE COMPOSITE ON METAL DECK SHALL BE LIGHT WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS, UNLESS OTHERWISE NOTED.

3. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 30 MPa AT 28 DAYS, UNLESS OTHERWISE NOTED.

4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).

5. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 420.

6. WELDED WIRE REINFORCEMENT (W.W.R.) SHALL CONFORM TO ASTM A1064, WITH A MINIMUM YIELD STRENGTH OF 450 MPa.

7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ALL OTHER DISCIPLINES. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 150.

8. ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa.

9. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:

A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 75mm

B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:

a. 50mm (#18 THROUGH #57 BARS)

b. 40mm (#16 BAR AND SMALLER)

C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:

a. SLABS, JOISTS, AND WALLS:

• 40mm (#43 THROUGH #57 BARS)

• 20mm (#36 BAR AND SMALLER)

b. BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES (STIRRUPS, TIES, SPIRALS, HOOPS, AND PRIMARY REINFORCEMENT): 40mm

D. SHEAR WALLS: SEE ELEVATIONS FOR SPECIFIED CONCRETE COVER.

10. SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO CONCRETE WORK SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.

11. CLEAN AND ROUGHEN TO 5mm AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.

12. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERT AND EMBED ITEMS.

13. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED

CONCRETE BLOCK

1. ALL CONCRETE BLOCK WORK SHALL CONFORM TO THE "NATIONAL CONCRETE MASONRY ASSOCIATION TEK MANUAL FOR THE DESIGN AND CONSTRUCTION OF CONCRETE MASONRY", LATEST EDITION, AND "ACI 530-BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".

2. CONCRETE BLOCK SHALL BE OF LIGHTWEIGHT AGGREGATE AND CONFORM TO THE FOLLOWING STANDARDS: SOLID/HOLLOW BLOCK: ASTM C90.

NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT (MPa)

NET AREA COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY, F_m (MPa) USING TYPE S MORTAR

6

4.8

UNLESS OTHERWISE NOTED ON PLANS AND/OR ELEVATIONS, CONCRETE BLOCK UNIT STRENGTH SHALL BE 6 MPa MIN.

3. ALL MORTAR SHALL BE ASTM C270, TYPE S.

4. ALL GROUT FOR FILLING CELLS SHALL BE ASTM C 476 WITH MINIMUM COMPRESSIVE STRENGTH OF 13.8 MPa BUT NOT LESS THAN THE COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY, F_m WHERE GROUT CELLS DO NOT EXCEED 100mm IN DIAMETER FINE GROUT SHALL BE USED.

5. ALL BLOCK DIMENSIONS INDICATED ON STRUCTURAL PLANS ARE NOMINAL DIMENSIONS.

6. ALL CONCRETE BLOCK BELOW GRADE SHALL BE FILLED SOLID WITH GROUT.

7. CONCRETE BLOCK BELOW BEAM OR TRUSS BEARING POINTS SHALL BE FILLED SOLID FOR A MINIMUM OF TWO COURSES IN DEPTH AND A MINIMUM OF 813mm IN WIDTH, UNLESS NOTED OTHERWISE.

8. INSTALL HEAVY DUTY LADDER JOINT REINFORCEMENT AT 407mm ON CENTER (SPACED VERTICALLY).

9. UNLESS NOTED OTHERWISE ALL MASONRY WALLS SHALL BE REINFORCED WITH #13@ 1200mm ON CENTER VERTICAL. GROUT ALL REINFORCED CELLS SOLID. PROVIDE DOWELS TO MATCH VERTICAL REINFORCING AT FOUNDATION.

10. WHERE CMU IS SUPPORTED ON STRUCTURAL STEEL MEMBERS, PROVIDE WELDED REBAR DOWELS BETWEEN STEEL AND CMU. DOWELS TO MATCH SIZE AND SPACING OF CMU REINFORCEMENT AND MUST PROVIDE FULL TENSION LAP SPICE WITH CMU REINFORCEMENT. DOWELS MUST BE WELDABLE AND CONFORM TO ASTM A706, GRADE 60 HAVING A MINIMUM YIELD POINT OF 420 MPa.

MASONRY LINTELS

1219 OR LESS

L102X89X7.9 LLV

1220 TO 2134

L152X89X7.9 LLV

A. 89 LEGS ARE HORIZONTAL.

B. PROVIDE ONE ANGLE FOR EACH 1219 OF WALL THICKNESS.

C. PROVIDE 1:27X127X7.9 ANGLES FOR 152 THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 1829.

D. PROVIDE MINIMUM 152" BEARING AT EACH END.

E. LINTELS OVER 1929 SHALL BE FIREPROOFED.

11. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.

12. PROVIDE MECHANICALLY GALVANIZED BOLTS FOR EXTERIOR APPLICATIONS.

STRUCTURAL STEEL JOIST

1. ALL STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OF STEEL JOIST INSTITUTE (SJI) STANDARD SPECIFICATIONS, LOAD TABLES, AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS.

2. THE STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF SJI OR PROVIDE CERTIFICATION THAT THE DESIGN OF ALL JOISTS CONFORM TO SJI STANDARDS.

3. MAINTAIN UNIFORM JOIST DEPTH IN AREAS WHERE JOISTS ARE EXPOSED TO VIEW.

4. CONTRACTOR'S ENGINEER IS RESPONSIBLE FOR THE DESIGN OF JOISTS THAT ARE NOT LISTED IN THE SJI STANDARD LOAD-SPAN TABLES (STANDARD JOIST), INCLUDING SPECIAL JOISTS. SUBMIT CALCULATIONS BEARING THE SEAL AND SIGNATURE OF AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION FOR NON-STANDARD JOISTS AND COMPONENTS REQUIRING DESIGN.

5. SPECIAL JOISTS (SP), WHERE INDICATED ON PLANS, HAVE SPECIAL DESIGN REQUIREMENTS. REFER TO PLANS AND DETAILS FOR LOCATIONS AND LOADING DIAGRAMS.

6. VERIFY THE SIZE AND LOCATION OF FLOOR OPENINGS AND MEP DUCTS/PIPING PRIOR TO DETAILING OF JOISTS AND COMPONENTS.

7. CONCENTRATED LOADS APPLIED TO JOISTS SHALL ADHERE TO THE FOLLOWING REQUIREMENTS:

A. WHERE POSSIBLE, SUPPORT CONCENTRATED LOADS AT PANEL POINTS

B. AT ALL CONCENTRATED LOADS NOT AT PANEL POINTS, EXCEPT AS NOTED BELOW, EITHER PROVIDE A "STRUT" TO TRANSFER LOAD TO A PANEL POINT ON OPPOSITE CHORD OR DESIGN CHORD SPECIFICALLY FOR LOADS

C. "STRUTS" SHALL NOT BE REQUIRED IF THE SUM OF THE CONCENTRATED LOADS WITHIN A CHORD PANEL DOES NOT EXCEED 100 LBS AND THE ATTACHMENTS ARE CONCENTRIC TO THE CHORD.

8. EXTEND BOTTOM CHORDS OF JOISTS AT COLUMNS AS SHOWN IN DETAILS. CONNECT BOTTOM CHORDS TO COLUMNS AFTER STRUCTURAL DEAD LOAD IS IN PLACE.

9. WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO PERPENDICULAR DIRECTIONS WITH STEEL BEAMS THE COLUMN SHALL BE BRACED BY A BOLTED CONNECTION OF THE TOP AND BOTTOM CHORD OF THE JOIST SUPPORTED BY THE COLUMN.

10. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE DESIGN AND SPACING REQUIREMENTS OF THE SJI STANDARDS SPECIFICATIONS FOR JOIST AND JOIST GIRDERS. COORDINATE BRIDGING WITH ARCHITECTURAL LAYOUT. WELD OR BOLT BRIDGING AND ANCHOR AT STRUCTURAL WALLS OR BEAMS PRIOR TO THE APPLICATION OF ADDED LOADS OTHER THAN ROOF DECK.

11. FOR JOISTS RESISTING NET WIND UPLIFT, PROVIDE BRIDGING OF BOTTOM CHORD AT THE FIRST PANEL POINT FROM SUPPORT. PROVIDE ADDITIONAL BRIDGING AS REQUIRED BY THE JOIST MANUFACTURER TO RESIST POSSIBLE INSTABILITY ISSUES REQUIRED BY CODE. PROVIDE END ANCHORAGE PER SJI STANDARDS TO TRANSFER END REACTIONS TO SUPPORT.

12. SHOP PAINT ALL STEEL JOISTS NOT SPRAY FIREPROOFED WITH TNE MEC #10-99 OR APPROVED EQUAL (EXCEPT FOR MEMBERS TO BE HOT DIP GALVANIZED)

13. HOT-DIP GALVANIZING SHALL CONFORM TO ASTM A123. REPAIR SCRATCHES OR ABRADED GALVANIZED SURFACE WITH ZINC RICH PAINT. ALL EXTERIOR EXPOSED STEEL AND STEEL SUPPORTING EXTERIOR SHALL BE HOT-DIP GALVANIZED.

14. WELD OR BOLT ALL JOISTS TO SUPPORTING STRUCTURAL STEEL MEMBERS AS SHOWN ON DRAWINGS BUT NO LESS THAN THE REQUIREMENTS OF THE SJI STANDARDS.

15. END BEARING SEAT DEPTH SHALL BE (UNLESS NOTED OTHERWISE):

A. K-SERIES: 64MM DEEP

B. LH-SERIES: 127MM DEEP

C. DLH-SERIES: CHORD NUMBERS 2-17: 127MM DEEP

D. DLH-SERIES: CHORD NUMBERS 18-22: 152MM DEEP

JOISTS OF DIFFERING SERIES SUPPORTED ON THE SAME MEMBERS SHALL HAVE THE SAME SEAT HEIGHT, UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:

A. AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS".

B. AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

C. AMERICAN WELDING SOCIETY (AWS D1.1) "STRUCTURAL WELDING CODE - STEEL".

D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RSCC) "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".

2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

A. WIDE FLANGE BEAMS, COLUMNS, AND STRUCTURAL TEES: ASTM A992 HAVING A MINIMUM YIELD POINT OF 345 MPa.

B. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C HAVING A MINIMUM YIELD POINT OF 317 MPa.

C. STRUCTURAL PIPE SECTIONS: ASTM A53, GRADE B HAVING A MINIMUM YIELD POINT OF 240 MPa.

D. CHANNELS, ANGLES, AND PLATES: ASTM A36 HAVING A MINIMUM YIELD POINT OF 248 MPa, UNLESS OTHERWISE NOTED.

E. STRUCTURAL STEEL PLATE SHALL BE ASTM A572 GRADE 50 HAVING A MINIMUM YIELD POINT OF 345 MPa. GRADE 42 HAVING A MINIMUM YIELD POINT OF 290 MPa FOR THICKNESS GREATER THAN 100.

F. BOLTED CONNECTIONS SHALL BE PER ASTM F3125. GRADES ARE TO BE SELECTED AS FOLLOWS:

a. STANDARD BEAM TO BEAM/GIRDER: ASTM F3125, GRADES A325, F1882, A490 OR F2280 BOLTS IN SNUG-TIGHTENED JOINTS (19 DIAMETER MINIMUM WITH HARDENED WASHERS).

b. BEAM/GIRDER TO COLUMN CONNECTIONS, COLUMN SPLICES AND BOLTS EXPERIENCING TENSION LOADS (UNLESS OVERSIZED OR SLOTTED HOLES ARE USED, IN WHICH CASE SLIP-CRITICAL JOINTS SHALL BE USED) SHALL BE ASTM F3125, GRADES A325, F1882, A490 OR F2280 BOLTS IN PRETENSIONED JOINTS (19 DIAMETER MINIMUM WITH HARDENED WASHERS).

c. MOMENT CONNECTIONS AND BRACED FRAME CONNECTIONS: ASTM F3125, GRADES A325, F1882, A490 OR F2280 BOLTS IN SLIP CRITICAL JOINTS (19 DIAMETER MINIMUM WITH HARDENED WASHERS). FAYING SURFACES SHALL BE CLASS A UNLESS OTHERWISE NOTED.

d. PER AISC 341, ALL BOLTS SHALL BE INSTALLED AS PRETENSIONED HIGH STRENGTH BOLTS AND MEET THE REQUIREMENTS FOR SURFACE PREPARATION FOR SLIP CRITICAL CONNECTIONS WITH CLASS A SLIP COEFFICIENT OR HIGHER. THE AVAILABLE SHEAR STRENGTH OF BOLTED JOINTS USING STANDARD HOLES SHALL BE CALCULATED AS THAT FOR BEARING TYPE JOINTS.

G. ANCHOR RODS: ASTM F1554, GRADE 36.

3. STEEL CONNECTION SHALL BE STANDARD AISC. FRAMED BEAM CONNECTIONS, AND SHALL BE

• SELECTED OR COMPLETED BY AN EXPERIENCED STEEL DETAILER

• DESIGNED BY A LICENSED ENGINEER WORKING FOR THE FABRICATOR, WHO SHALL PROVIDE CALCULATIONS.

• UTILIZING LRFD LOADS AND PROCEDURES.

A. UNLESS OTHERWISE NOTED ON PLAN, PROVIDE CONNECTIONS BASED ON MINIMUM SHEAR CAPACITY REQUIREMENTS IN THE FOLLOWING TABLE.

MINIMUM SHEAR CAPACITY REQUIREMENTS

BEAM DEPTH (NOMINAL)

MIN. SHEAR CAPACITY ASD (kN)

MIN. SHEAR CAPACITY LRFD (kN)

203, 254

71

107

305, 356

125

187

406

178

276

457

231

334

533

258

391

B. REINFORCING IS TO BE PROVIDED AT CONNECTIONS WHERE CUTS REDUCE THE SHEAR OR MOMENT CAPACITY BELOW THAT REQUIRED TO SUSTAIN THE REACTION. FLANGES AND WEBS ARE TO BE REINFORCED WHERE THE LOCAL CAPACITY TO SUSTAIN CONNECTION LOADS ARE INADEQUATE.

C. CONNECTIONS SHALL BE DESIGNED FOR SHEAR AND ECCENTRICITY, CONSIDERING THAT THE CONNECTIONS ARE AN EXTENSION OF THE BEAMS AND GIRDERS.

4. MINIMUM WELD SIZE IS 6 FILLET UNLESS NOTED OTHERWISE.

5. ALL BEAMS EXCEPT CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED SO THAT NATURAL CAMBER RAISES CANTILEVER END.

6. FIELD CUTTING OR BURNING OF STEEL IS PROHIBITED EXCEPT WITH THE EXPRESS WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD. (IN WHICH CASE ALL BURNING OF STEEL MUST CONFORM TO THE THERMAL CUTTING REQUIREMENTS OF AISC AND AWS)

7. WELDING SHALL BE PERFORMED BY CERTIFIED, AWS-QUALIFIED WELDERS. WELDING ELECTRODES FOR CARBON STEEL SHALL BE AWS E.5.1, CLASS E70XX. FOR ASTM A572 GRADE 345 MPa PLATE USE ELECTRODE E7018 OR APPROVED EQUAL.

8. SHOP PAINT EXTERIOR EXPOSED STEEL MEMBERS, STEEL MEMBERS NOT ENCASED IN CONCRETE OR SPRAY FIREPROOFED, AND ALL STEEL MEMBERS AT THE EXTERIOR WALL WITH TNE MEC #10-99 "OR APPROVED EQUAL EXCEPT FOR MEMBERS TO BE HOT DIPPED GALVANIZED.

9. ALL EXTERIOR EXPOSED STEEL AND STEEL SUPPORTING EXTERIOR SHALL BE HOT DIPPED GALVANIZED. HOT DIP GALVANIZING SHALL CONFORM TO ASTM A123. REPAIR SCRATCHES OR ABRADED GALVANIZED SURFACE WITH ZINC RICH PAINT.

10. LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS, U.O.N.:

MASONRY LINTELS

1219 OR LESS

L102X89X7.9 LLV

1220 TO 2134

L152X89X7.9 LLV

A. 89 LEGS ARE HORIZONTAL.

B. PROVIDE ONE ANGLE FOR EACH 1219 OF WALL THICKNESS.

C. PROVIDE 1:27X127X7.9 ANGLES FOR 152 THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 1829.

D. PROVIDE MINIMUM 152" BEARING AT EACH END.

E. LINTELS OVER 1929 SHALL BE FIREPROOFED.

11. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.

12. PROVIDE MECHANICALLY GALVANIZED BOLTS FOR EXTERIOR APPLICATIONS.

STEEL DECK

1. STEEL DECKING WORK SHALL CONFORM TO THE AISI NORTH AMERICAN "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."

2. STEEL DECKING UNITS AND ACCESSORY ITEMS SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A1008 OR A653 WITH A MINIMUM YIELD STRENGTH OF 227 MPa. BEFORE FORMING, THE STEEL SHEET SHALL RECEIVE A HOT DIP GALVANIZED COATING CONFORMING TO ASTM A653, GRADE 90.

3. STEEL DECKING SHALL BE SHORED AS REQUIRED BY PLANS OR BY SPAN AND LOAD CONDITIONS TO SUPPORT WET WEIGHT OF CONCRETE AND ALL CONSTRUCTION LOADS.

4. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BY APPROVED METHOD (TO BE SHOWN ON SHOP DRAWINGS) BETWEEN SUPPORTS. AT INTERVALS TO PROVIDE SUFFICIENT DIAPHRAGM STRENGTH TO MAINTAIN BUILDING ALIGNMENT AND TO SUSTAIN LOAD CONSTRUCTION LOADS WITHOUT DISTORTION OR SEPARATION, MAXIMUM SPACING SHALL BE 1000 BETWEEN SUPPORT BEAMS. END LAPS OF SHEETS SHALL BE A MINIMUM OF 50.

5. EXCEPT AS OTHERWISE NOTED, DECK SHALL BE ATTACHED TO STRUCTURAL STEEL BY 19 Ø FUSION WELDS @ 305 ON CENTER AT END AND INTERIOR SUPPORTS PERPENDICULAR TO THE DECK SPAN AND AT EDGE AND INTERIOR SUPPORTS PARALLEL TO THE DECK SPAN. WELDS MAY BE OMITTED IN RIBS IN WHICH SHEAR CONNECTORS ARE TO BE APPLIED, EXCEPT THAT EACH DECK SECTION SHALL HAVE SUFFICIENT WELDS TO ADEQUATELY SECURE THE DECK, BRING THE DECK INTO DIRECT CONTACT WITH THE SUPPORTING STEEL AND TO PROVIDE SUFFICIENT DIAPHRAGM STRENGTH TO MAINTAIN BUILDING ALIGNMENT.

6. AS AN ALTERNATE TO PUDDLE WELDS FOR STEEL DECK ATTACHMENT TO STRUCTURAL STEEL, HILTI X-HSN-24 OR X-ENP-19 POWDER ACTUATED FASTENERS, OR AN APPROVED EQUAL, WITH EQUIVALENT OR GREATER CAPACITY TO THE SPECIFIED ATTACHMENT MAY BE USED. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALTERNATE FASTENING PATTERN TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. SUBMITTAL SHALL INCLUDE PROPOSED ALTERNATE PATTERN AND ANY CALCULATIONS OR SUPPORTING MANUFACTURER DATA NEEDED TO DEMONSTRATE THAT THE PATTERN MEETS OR EXCEEDS THE CAPACITY OF THE SPECIFIED ATTACHMENT.

7. POWDER ACTUATED FASTENERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE CERTIFIED AND TRAINED BY THE MANUFACTURER'S REPRESENTATIVE ON PROPER USE PRIOR TO INSTALLATION.

8. PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE STEEL DECKING SHOWING DECK GAUGE, SIZE, AND LAYOUT AS WELL AS CLOSURE CONDITIONS, WELDS TO SUPPORTS AND SIDE LAP DETAILS.

9. ALL REINFORCED OPENINGS IN STEEL DECK SHALL BE INSTALLED BY STEEL DECK SUBCONTRACTOR. STEEL DECK SUBCONTRACTOR TO PROVIDE REINFORCING AS PER TYPICAL DETAILS.

10. AT STEEL DECK WITHOUT CONCRETE FILL THE FOLLOWING MAY BE ATTACHED WITHOUT SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER: ACOUSTICAL TILE AND GYPSUM BOARD CEILING ONLY; NO PIPING, DUCTING OR CONDUIT. MAXIMUM CEILING WEIGHT = 0.2 kPa. MAXIMUM WIRE HANGER LOAD = 25 kN.

11. WHERE SUSPENSION OF HANGER WIRES ARE REQUIRED BY OTHERS, VERIFY AND COORDINATE LOCATIONS, PATTERNS, SPACING, ETC. WITH THE APPROPRIATE TRADE. DRILL OR PUNCH HOLES AT BOTTOM OF DECK FLUTES OF SUFFICIENT SIZE TO PASS SUPPORT WIRES. WIRE SUPPORTS SHALL BE LOOPED AND SECURED WITH A MINIMUM OF THREE (3) TIGHT TURNS AROUND A MINIMUM 38x 305 LONG FURRING CHANNEL OR NO. 76x305 LONG REINFORCING BAR CENTERED ABOVE THE HOLE AND LAID IN THE DECK FLUTES.

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS

1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY ENGINEER OF RECORD PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSESS BUILDINGS FOR THE PRESENCE OF THE MPI. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.

2. INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ADHORSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND ENGINEER OF RECORD WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.

A. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPI AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.

3. EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE ENGINEER OF RECORD.

4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF THE SLAB AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.

5. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY, GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.

6. SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE ENGINEER OF RECORD. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPI. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO USE.

SPECIAL INSPECTIONS (IBC)

1. INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY A TESTING AGENCY PROVIDED BY THE OWNER FOR THE FOLLOWING ITEMS:

A. INSPECTION OF FABRICATORS (IBC 1704.2.5)

B. STEEL CONSTRUCTION (IBC 1705.2)

a. STRUCTURAL STEEL (IBC 1705.2.1)

1. STRUCTURAL STEEL WELDING (AISC 360, AWS D1.1)

2. HIGH STRENGTH BOLTS (AISC 360)

b. COLD-FORMED STEEL DECK (IBC 1705.2.2)

C. CONCRETE CONSTRUCTION (IBC 1705.3, TABLE 1705.3)

a. WELDING OF REINFORCING BARS (IBC 1705.3.1, TABLE 1705.3)

b. MATERIALS TESTS (IBC 1705.3.2, TABLE 1705.3)

c. POST-INSTALLED ANCHORS (IBC TABLE 1705.3, ACI 318 CHAPTER 17)

d. MASONRY CONSTRUCTION (IBC 1705.4, ACI 530 AND ACI 530.1 LEVEL C QUALITY ASSURANCE)

e. SOILS (IBC 1705.6, TABLE 1705.6)

f. FABRICATED ITEMS (IBC 1705.10)

G. TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE (IBC 1705.13)

a. STRUCTURAL STEEL (IBC 1705.13.1)

2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.

3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

4. TESTING RESULTS TO BE DISTRIBUTED TO DESIGN TEAM AS WELL AS OWNER.

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

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Contract Date: NOVEMBER 30, 2020

Drawn by: Author

Designed by: Designer

Reviewed by: Checker

Submitted by: Approver

Issued Date: 08/01/21

Deliverable Date: 09/16/2022

File Name: IBC 1705.3.1, TABLE 1705.3, ACI 318 CHAPTER 17

Drwg. Code:

Plot Date: 9/16/2022 11:15:13 AM

Plot Scale: VARIES

Contract No: 447-0046-15-00001

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USAID SOUTH SUDAN - KITCHEN

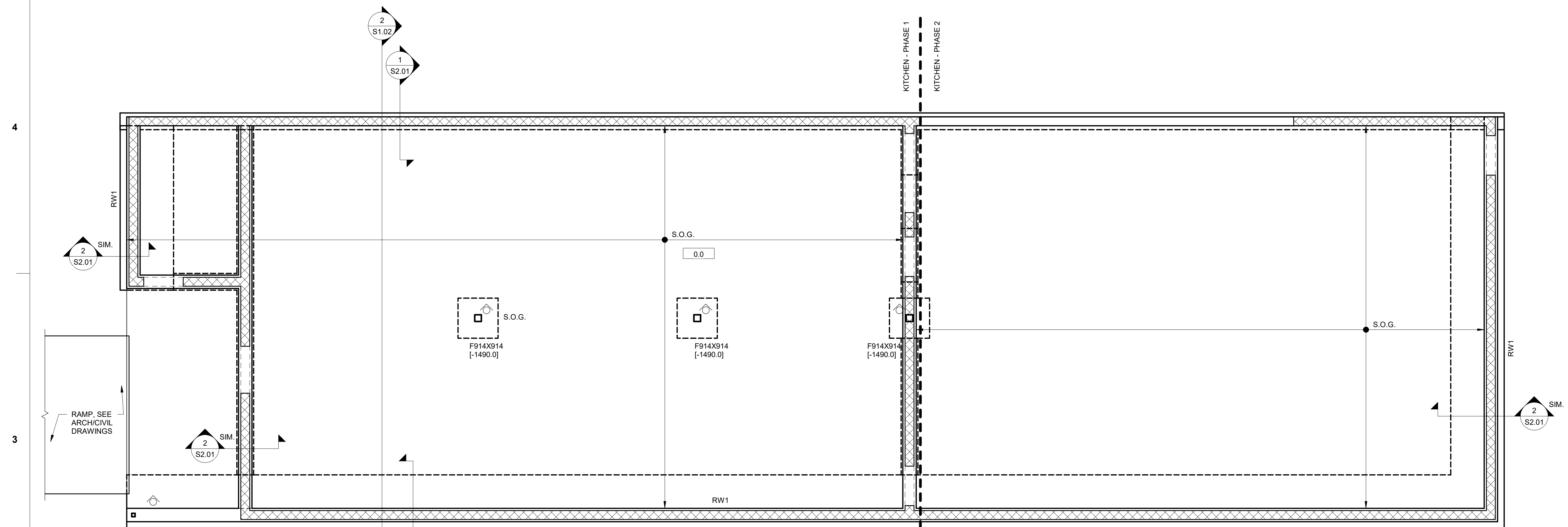
IFC DESIGN

GENERAL STRUCTURAL NOTES, LEGEND, ABBREVIATIONS

Sheet Reference Number

S0.01

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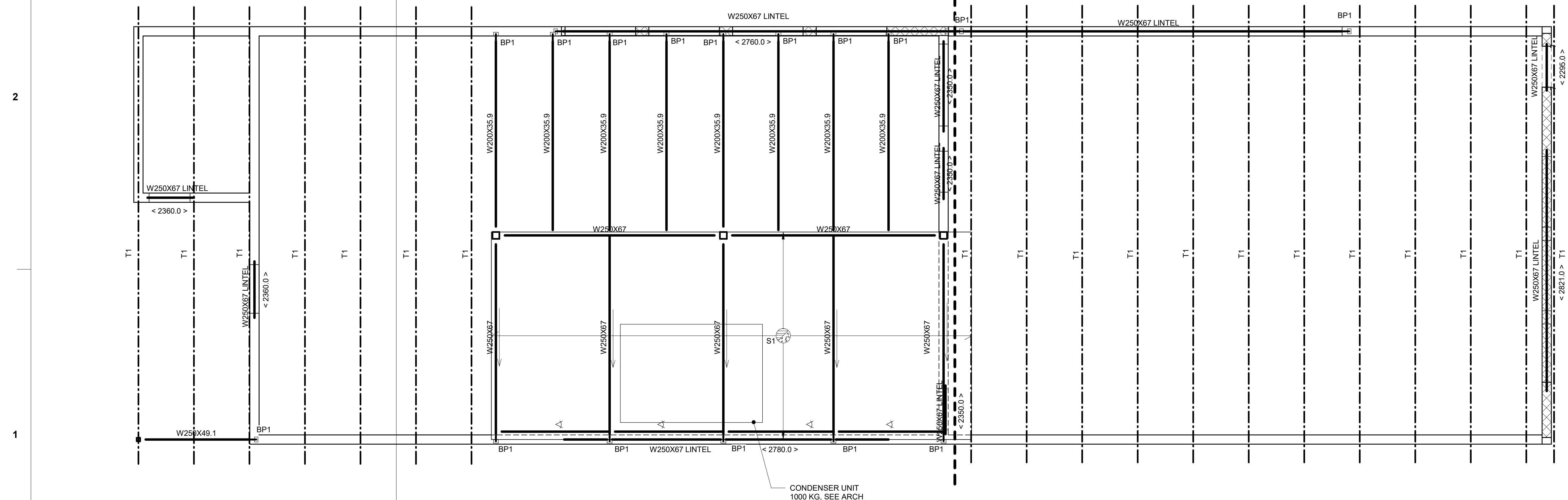


1 FIRST FLOOR FRAMING PLAN

1 : 50

PLAN NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL AND ELEVATION INFORMATION NOT SHOWN ON STRUCTURAL DRAWINGS.
2. COORDINATE ALL SLAB OPENINGS, SLOPES, DEPRESSIONS, EDGE DIMENSIONS WITH ARCHITECT, CIVIL, AND MEP.
3. BOTTOM OF FOOTINGS TO BE BELOW GRADE. BOTTOM OF FOOTINGS INDICATED BY ELEVATION TAGS [XX] ON PLAN.

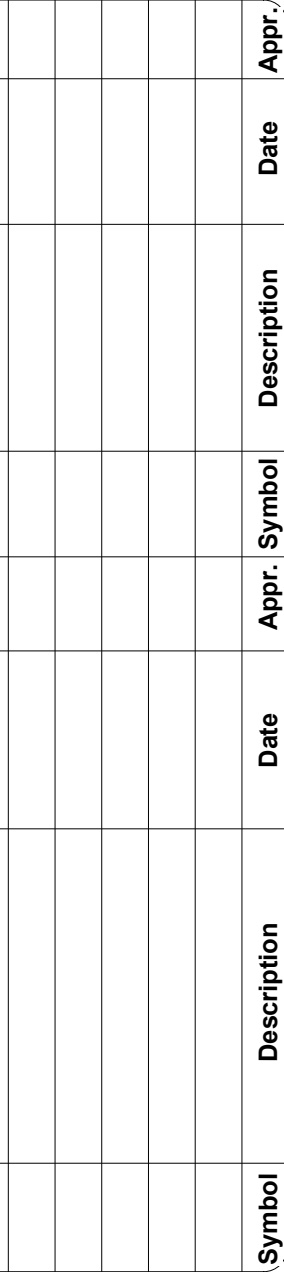


2 ATTIC FRAMING PLAN

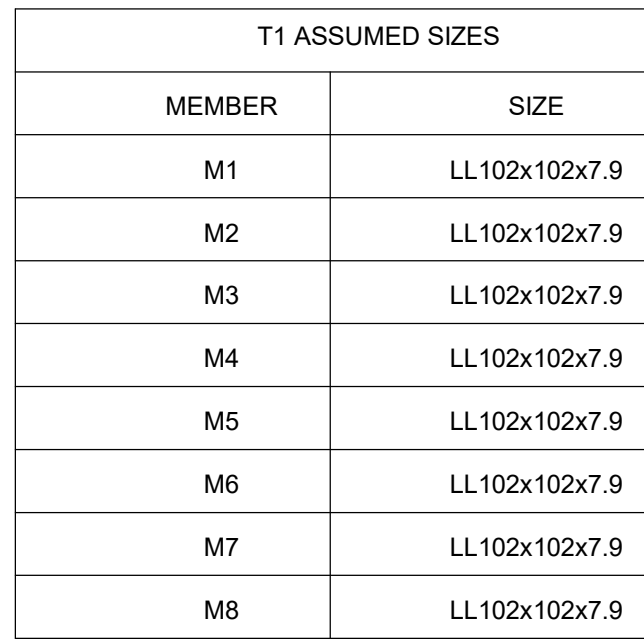
1 : 50

PLAN NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL AND ELEVATION INFORMATION NOT SHOWN ON STRUCTURAL DRAWINGS.
2. COORDINATE ALL SLAB OPENINGS, SLOPES, DEPRESSIONS, EDGE DIMENSIONS WITH ARCHITECT, CIVIL, AND MEP.
3. T1 INDICATES PREFABRICATED STEEL TRUSSES DESIGNED BY OTHERS.
4. FOR SLOPED BEAMS, SEE ARCH FOR CHANGE IN ELEVATION.

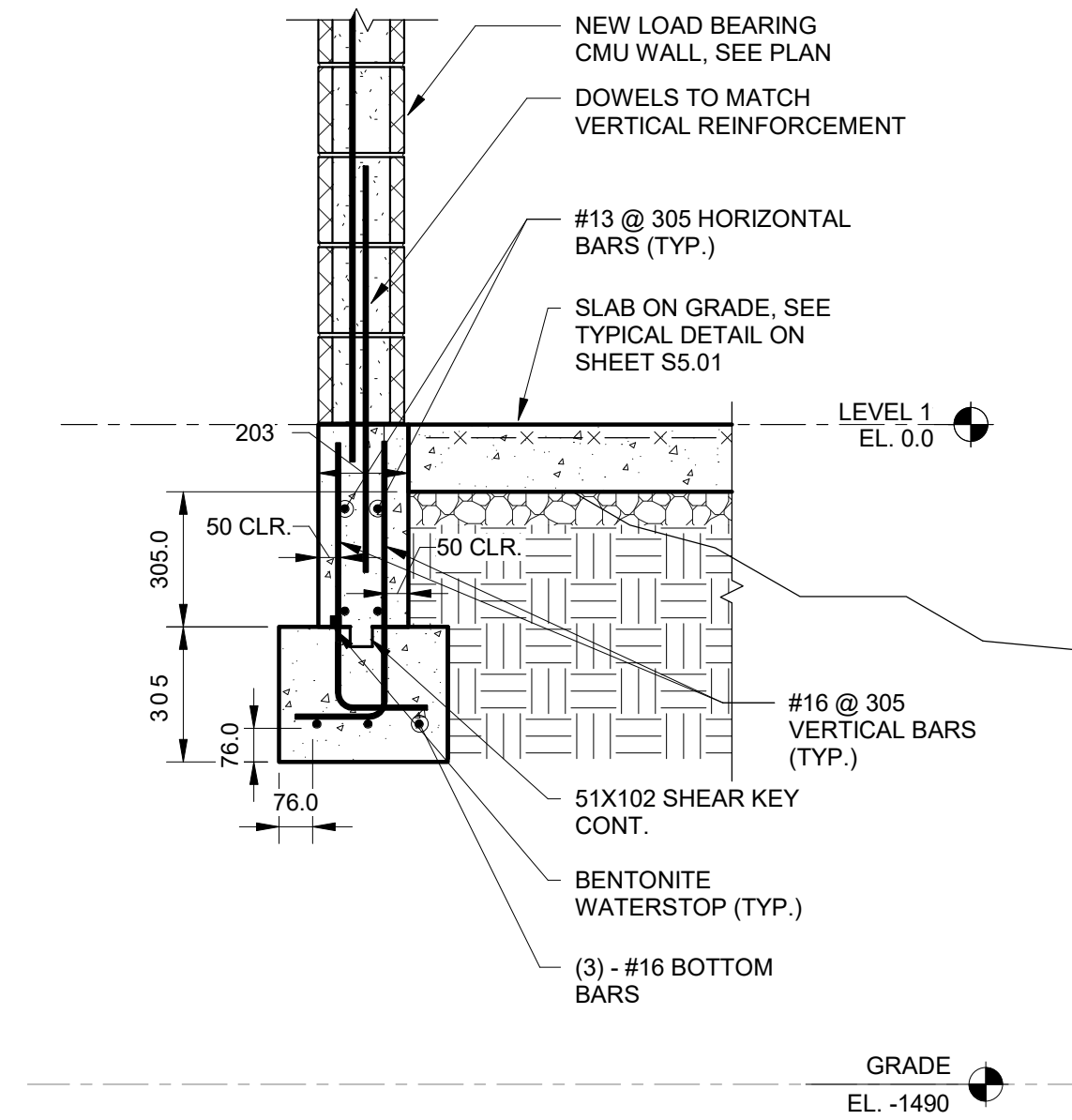


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| Designer | Reviewed by: Checker | Drawg. Code: | File Name: BMS 36136162 Engineering Support Program - South Western High Sch. - WY07EN-CENTRAL-4 | NOVEMBER 30, 2020 |
| Submitted by: Approver | Plot Date: 9/16/2021 | Plot Scale: VARIES | Contract No: 041/21/2021 041-0AA-11-5-0001 / 7266827F0000 | |

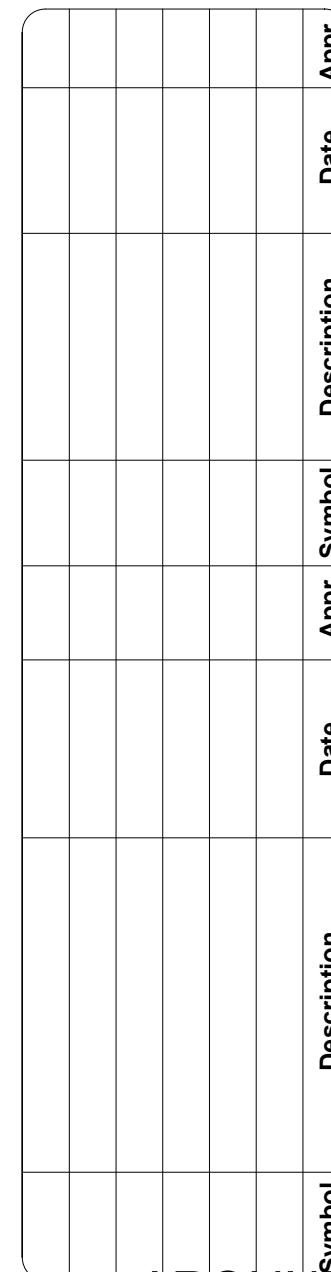


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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



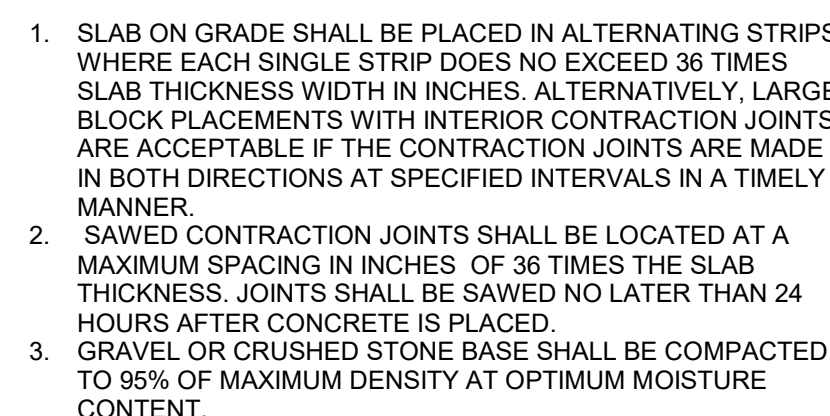
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ADDITIONAL REINFORCEMENT
AT ALL RE- ENTRANT CORNERS

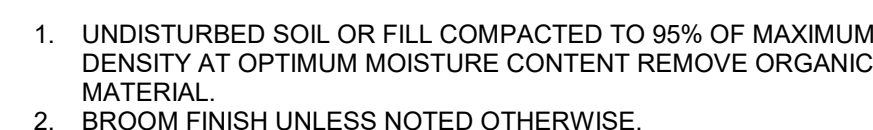
TYPICAL REINFORCEMENT OPENINGS IN CMU WALL

N.T.S.



SLAB-ON-GRADE & WALL INTERFACE

N.T.S



NOTES:

1. FOR SIZE AND LOCATION SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONCRETE FOR PADS SHALL BE NORMAL WEIGHT WITH $f_c = 30\text{GPa}$

N.T.S



1. FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY AS SPECIFIED IN THE GENERAL NOTES.
2. FOR SIZE, DEPTH AND REINFORCING SEE FOOTING SCHEDULE.

N.T.S.

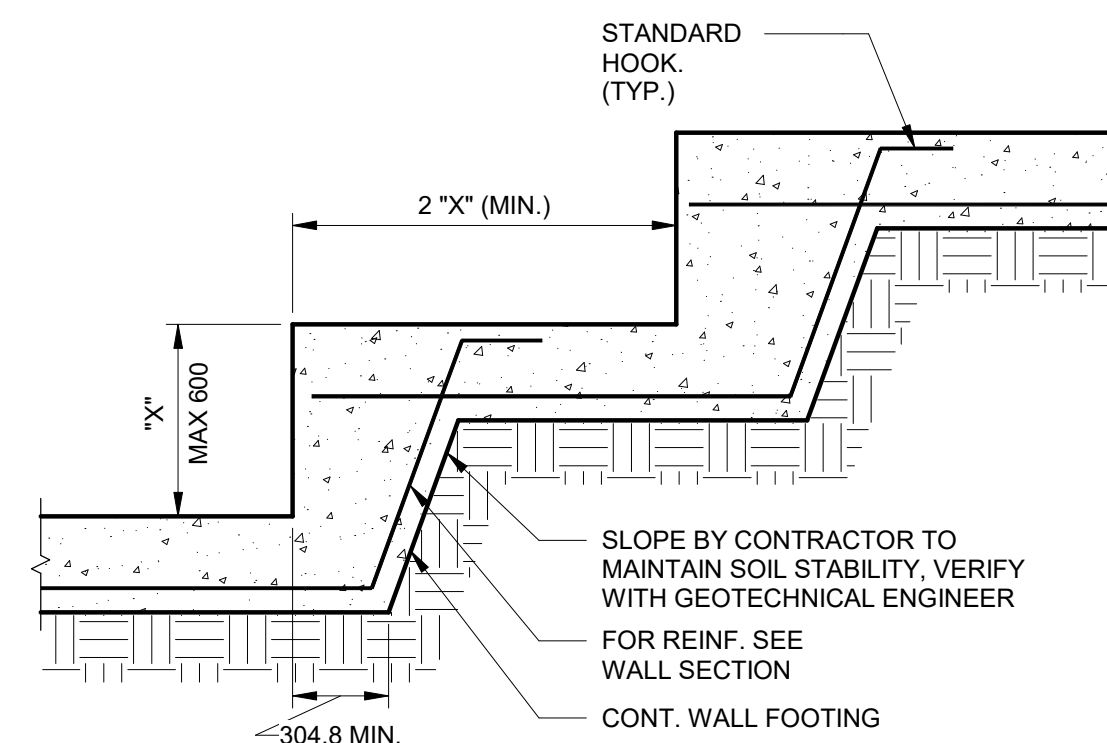


1. FOR SIZE AND LOCATION SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONCRETE FOR PADS SHALL BE NORMAL WEIGHT WITH $f_c = 4000$ PSI
3. THREADED RODS TO BE 10 Ø A-36 STEEL IN EXPANSION INSERTS @ 45' O.C. HY-200 ADHESIVE OR APPROVED EQUAL.

N.T.S



N.T.S.



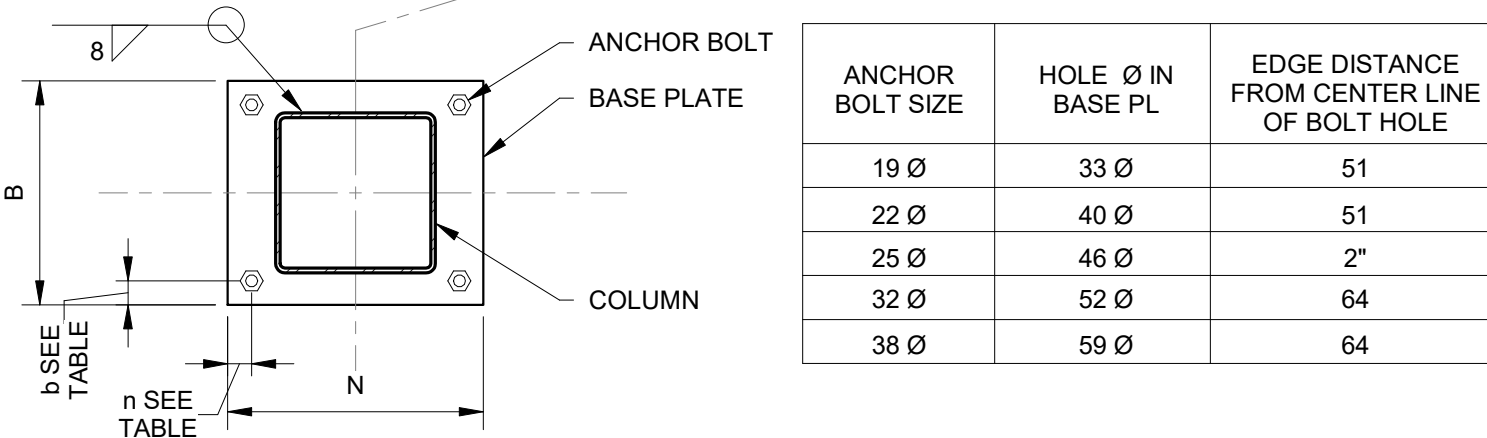
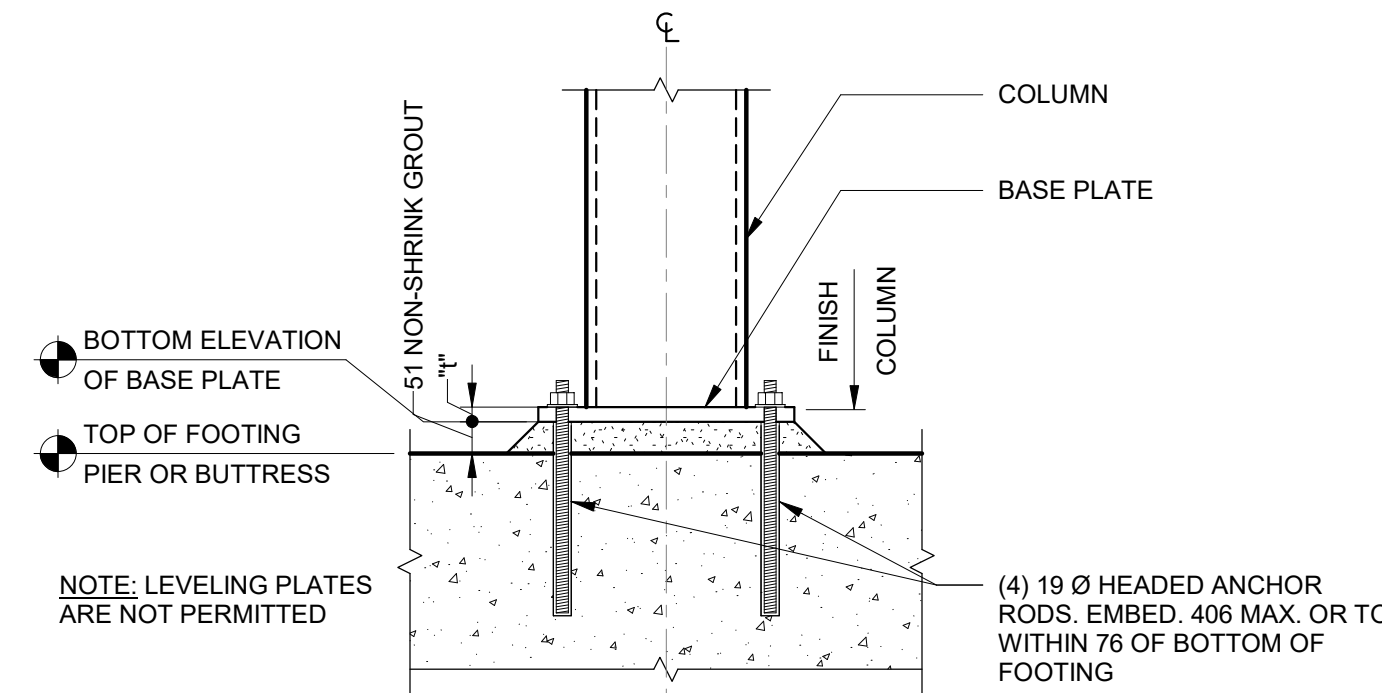
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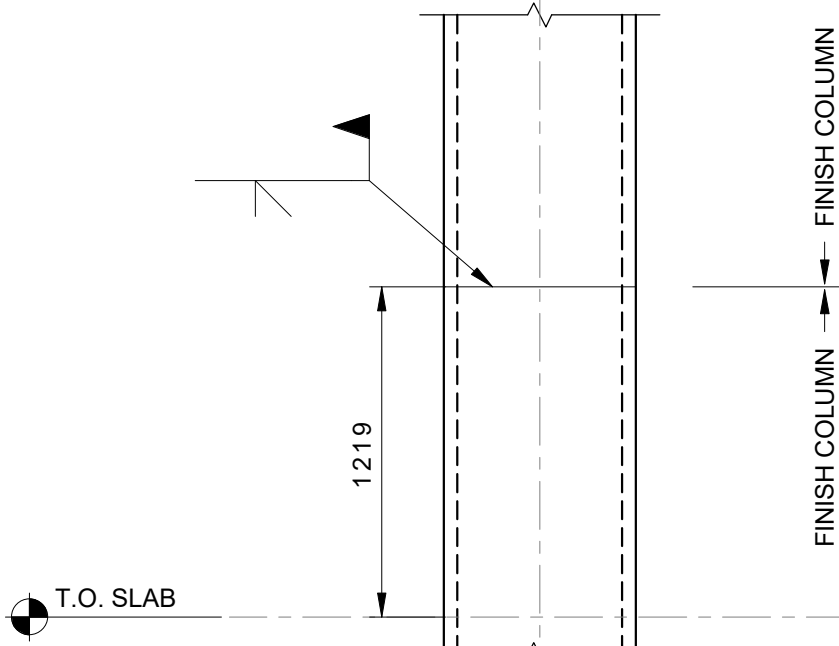
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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



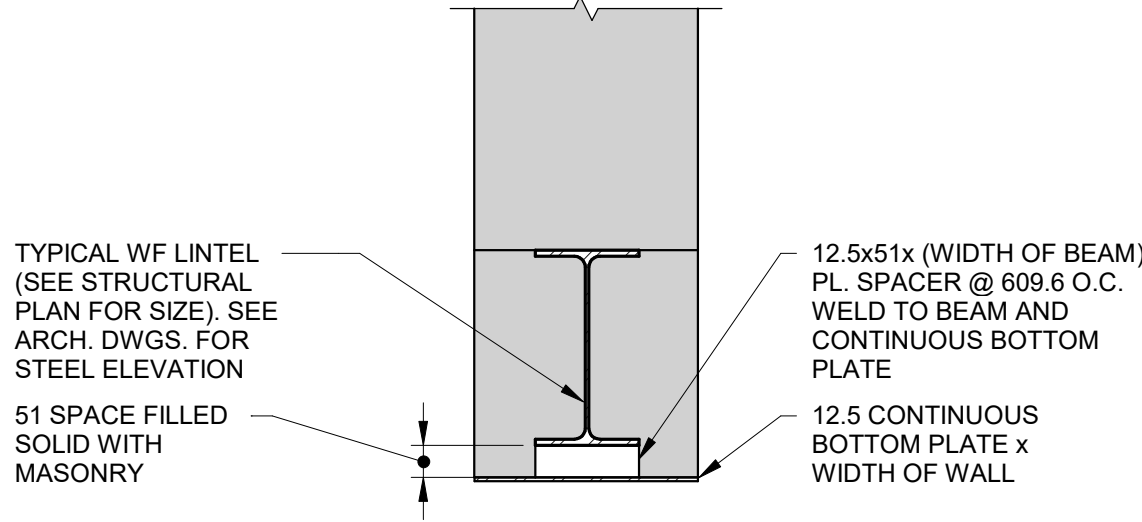
| BASE PLATE TYPE SCHEDULE | | | | | | | | |
|--------------------------|-------|--------|-----------|-------|-------------|----|----|---------|
| MARK | SIZE | | THICKNESS | GRADE | BOLTS | n | b | REMARKS |
| | WIDTH | LENGTH | | | | | | |
| BP1 | 300 | 300 | 15 | 345 | (4) 19 DIA. | 50 | 50 | |

TYPICAL COLUMN BASE PLATE AT PIPE OR TUBE COLUMN
N.T.S.

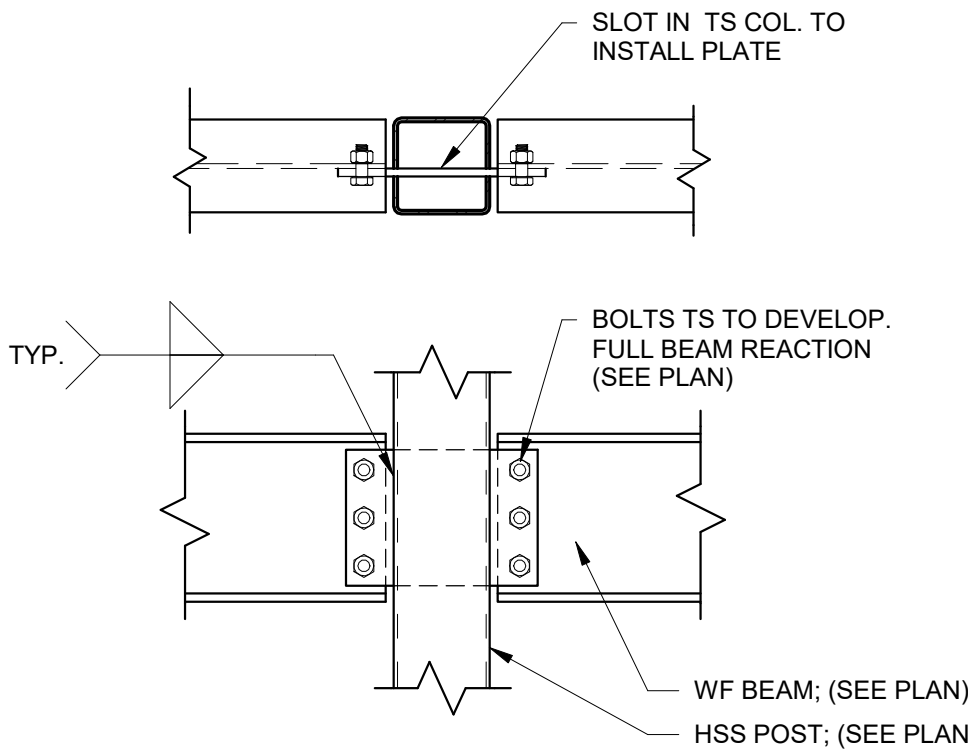


- NOTES:
1. DETAIL SPLICE AND PROVIDE MATERIALS IN ACCORDANCE WITH AISC ENGINEERING FOR STEEL CONSTRUCTION HANDBOOK AND ALL OSHA REQUIREMENTS.
 2. MAXIMUM LENGTH OF COLUMN TO BE LESSER OF 9.14M OR 2 STORIES.
 3. PROVIDE ALIGNMENT PLATES AS REQUIRED FOR COLUMN ERECTION. REMOVE ALIGNMENT PLATES AFTER COLUMN IS INSTALLED.

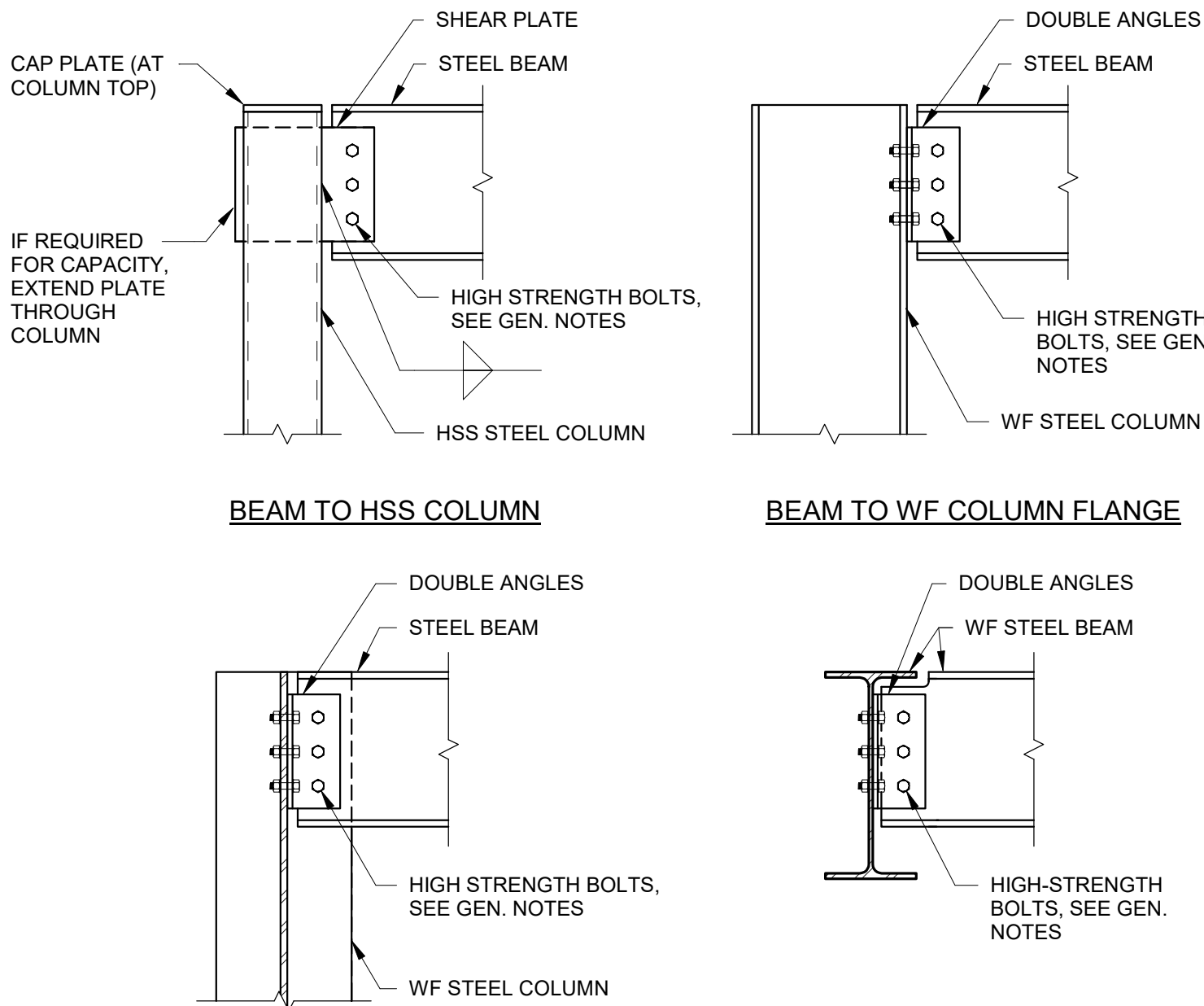
TYPICAL HSS COLUMN SPLICE
N.T.S.



TYPICAL FIREPROOFED STEEL LINTEL IN EXTERIOR MASONRY WALL
N.T.S.

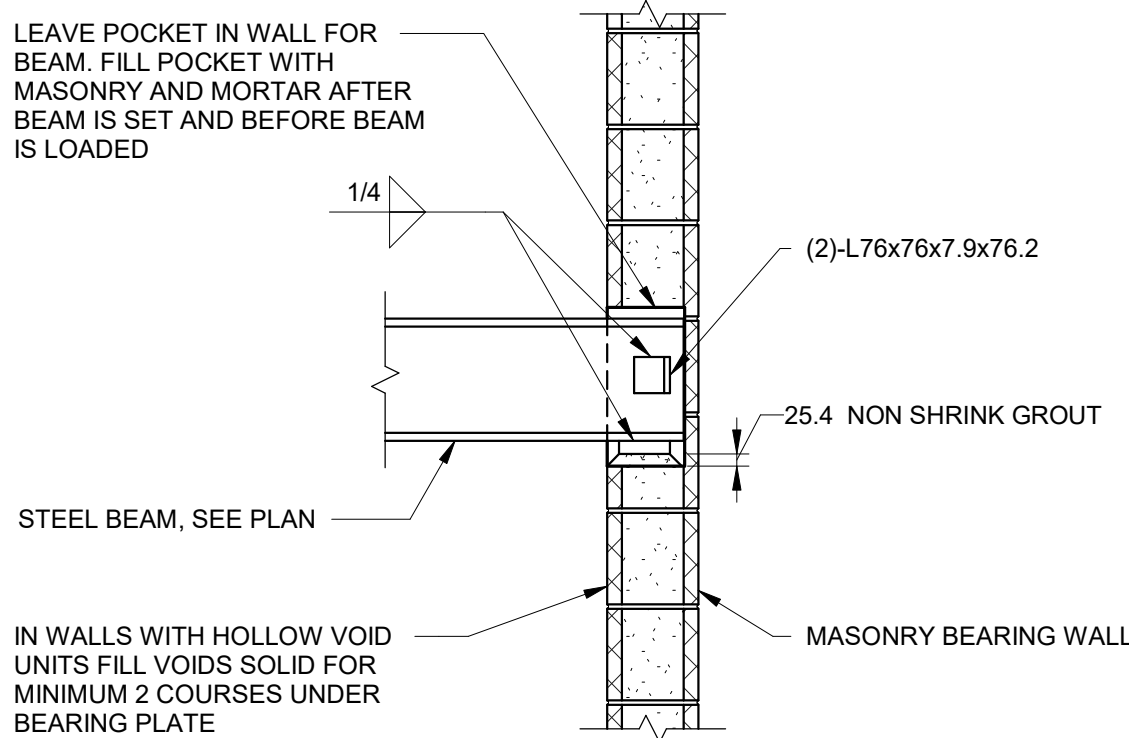


TYPICAL WF BEAM TO HSS POST CONNECTION (BOTH SIDES)
N.T.S.



- NOTES:
1. CONNECTION DETAILS SHOWN ABOVE ARE SCHEMATIC ONLY. THE CONTRACTOR MAY SUBMIT ALTERNATE DETAILS FROM THOSE SHOWN ABOVE, BUT IN ANY CASE THE CONTRACTOR IS RESPONSIBLE FOR PRODUCING STEEL SHOP DRAWINGS IN ACCORDANCE WITH THE PROJECT GENERAL NOTES AND AISC GUIDELINES. CALCULATIONS SHALL BE SUBMITTED AS REQUIRED IN THE GENERAL NOTES AND ELSEWHERE IN THE CONTRACT DOCUMENTS.
 2. THE CONTRACTOR SHALL DETAIL THE PROJECT CONNECTIONS FOR THE LOADS AS INDICATED IN THE CONTRACT DOCUMENTS, PER AISC GUIDELINES. THE SCHEMATIC DETAILS ABOVE ARE NOT SUGGESTIVE OF SPECIFIC CAPACITIES. THE NUMBER AND SIZE OF BOLTS, SIZE AND LENGTH OF WELDS, AND SIZE OF STEEL PIECES MUST BE DETERMINED PER AISC GUIDELINES AND THE CONTRACT DOCUMENTS.
 3. PROVIDE FULL DEPTH CONNECTIONS AT ALL PERIMETER BEAM CONNECTIONS AND AT BEAM CONNECTIONS TO PERIMETER BEAMS, UNLESS OTHERWISE NOTED.

TYPICAL SUGGESTED SHEAR CONNECTIONS AT GRAVITY LOADS ONLY
N.T.S.



| BEAM BEARING PLATE SCHEDULE | | | | |
|-----------------------------|--------|-------|-----------|---------|
| MARK | SIZE | | THICKNESS | REMARKS |
| | LENGTH | WIDTH | | |
| BP1 | 280.0 | 127.0 | 25.4 | |

TYPICAL BEAM BEARING ON NEW MASONRY WALL
N.T.S.



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| Symbol | Description | Date | Appr. | Symbol | Description | Date | Appr. |
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| Designed by: Designer | Drawn by: Author | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: Checker | Drwg. Code: | File Name: BIM-000-USAID-Engineering BIM-000-USAID-Engineering BIM-000-USAID-Engineering |
| Submitted by: Approver | Plot Date: 9/16/2022 11:15:17 AM | Plot Scale: VARIES |
| Issued Date: Deliverable Date: 09/16/2022 | Contract No: AUC-000-15-0001 / 7268232F0003 | |

Perez.

USAID SOUTH SUDAN - KITCHEN
IFC DESIGN
TYPICAL DETAILS

Sheet
Reference
Number

S5.04

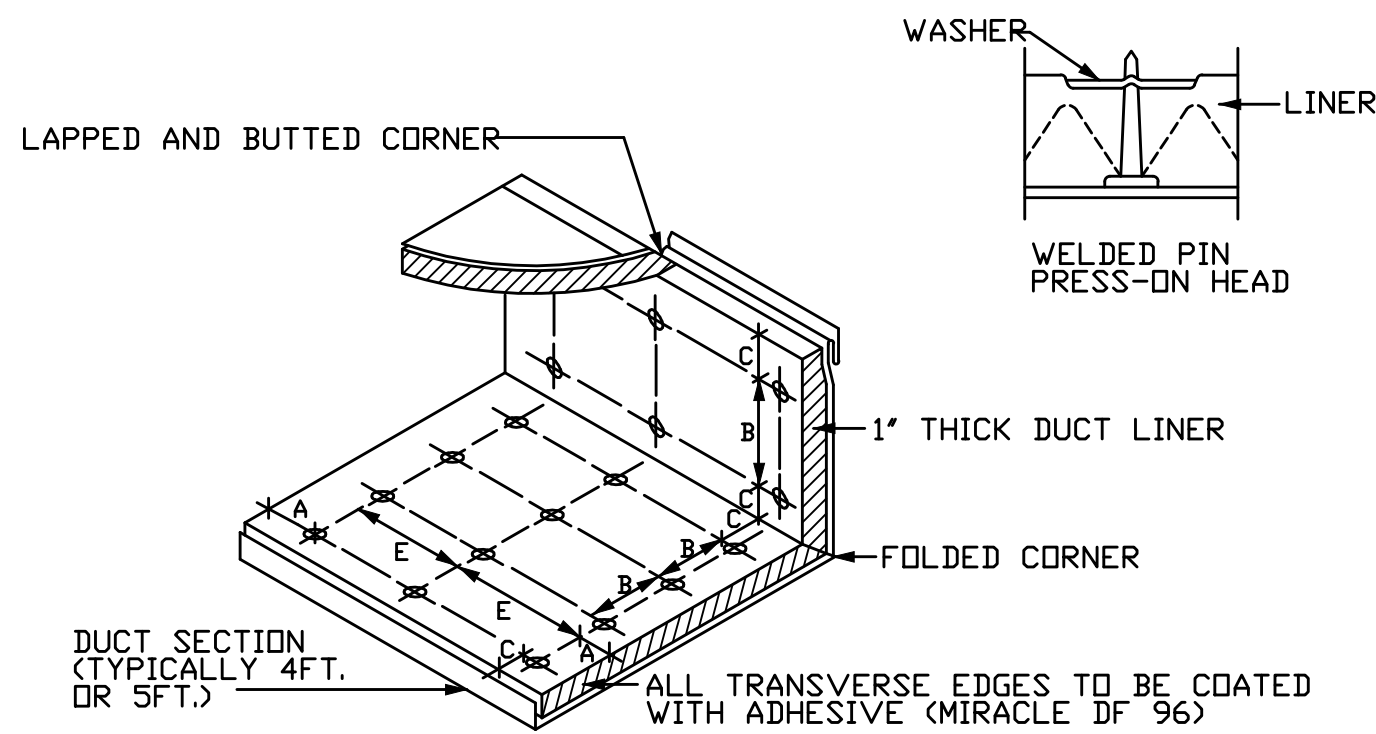
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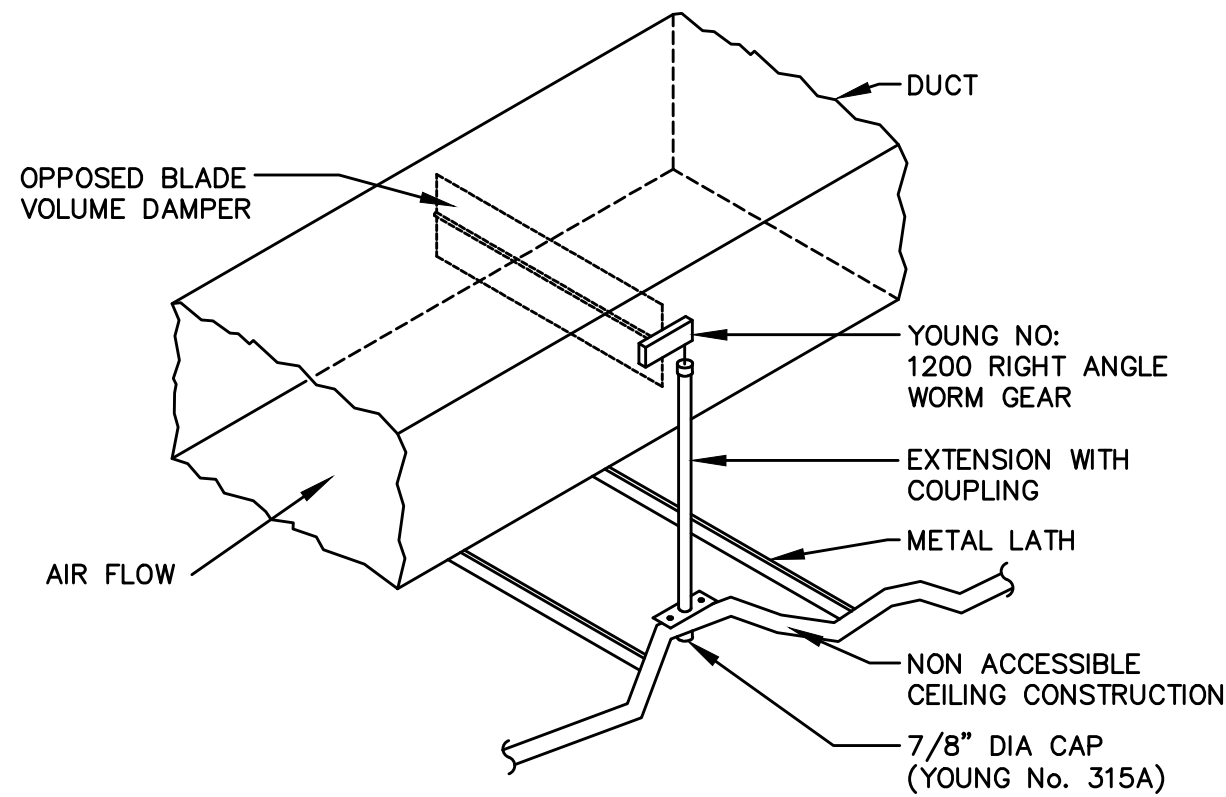


| VELOCITY | DIMENSIONS | | | |
|---------------|------------|-----|----|-----|
| | A | B | C | E |
| 0-2500 FPM | 3' | 12' | 4' | 18' |
| 2501-6000 FPM | 3' | 6' | 4' | 16' |

NOTES:

1. MAXIMUM SPACING FOR FASTENERS. ACTUAL INTERVALS ARE APPROXIMATE.
2. THE VELOCITY RATED SIDE OF LINER MUST FACE THE AIR FLOW.
3. LINER ADHERED TO THE DUCT WITH 90% MINIMUM AREA COVERAGE OF ADHESIVE.

DUCT LINER INSTALLATION DETAIL

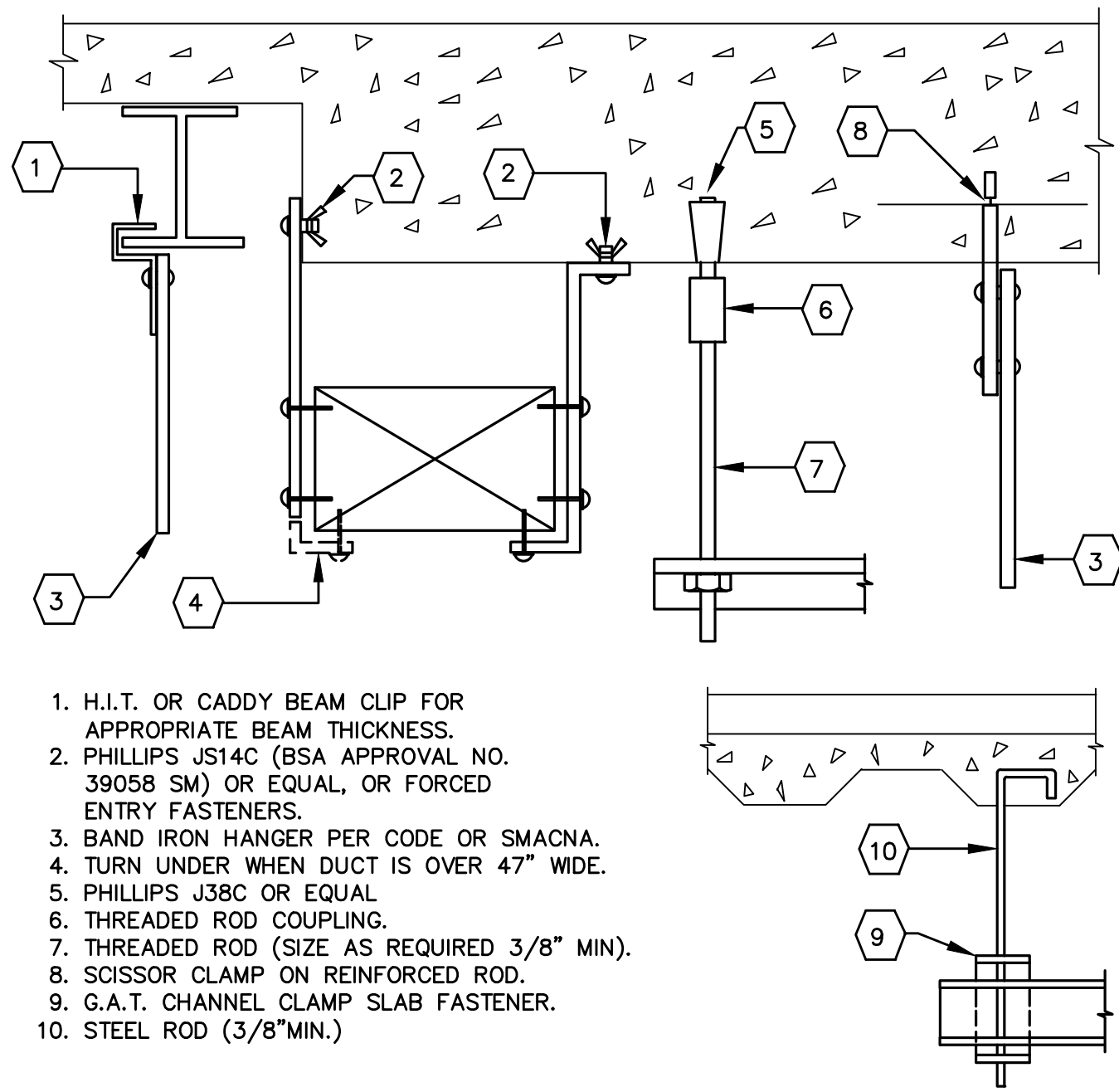


NOTES:

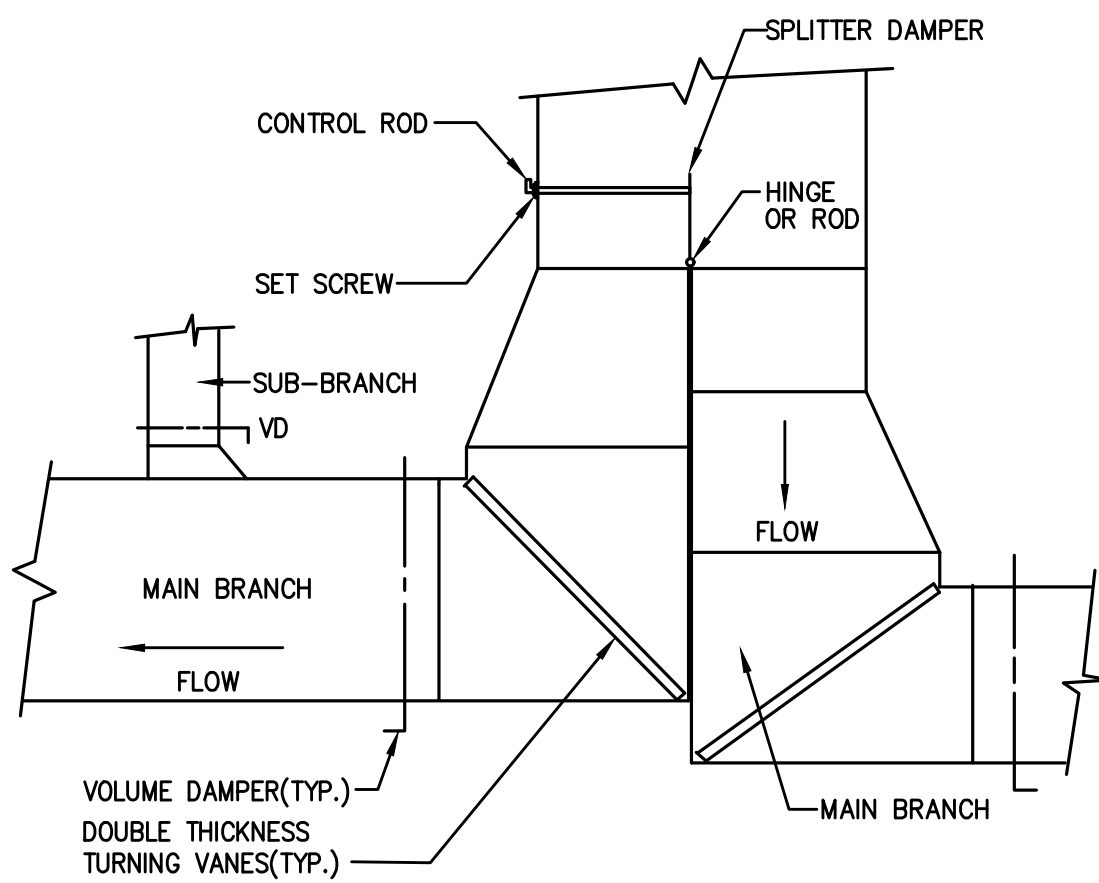
1. WHEN DAMPER IS LOCATED WITHIN 10' OF A DIFFUSER, OR WITHIN A LOBBY OR SPECIALTY SPACE (COORDINATE WITH ARCHITECT), VOLUME DAMPER ASSEMBLY SHALL BE OPERABLE THROUGH FACE OF NEAREST DIFFUSER, BY MEANS OF FLEXIBLE-CABLE BASED ON BOWDEN REMOTE CABLE CONTROL SYSTEM WITH YOUNG REGULATOR.
2. ALL OTHER NON-ACCESSIBLE CEILING AREAS SHALL BE AS INDICATED.

VOLUME CONTROL DAMPER

FOR NON ACCESSIBLE CEILINGS ONLY

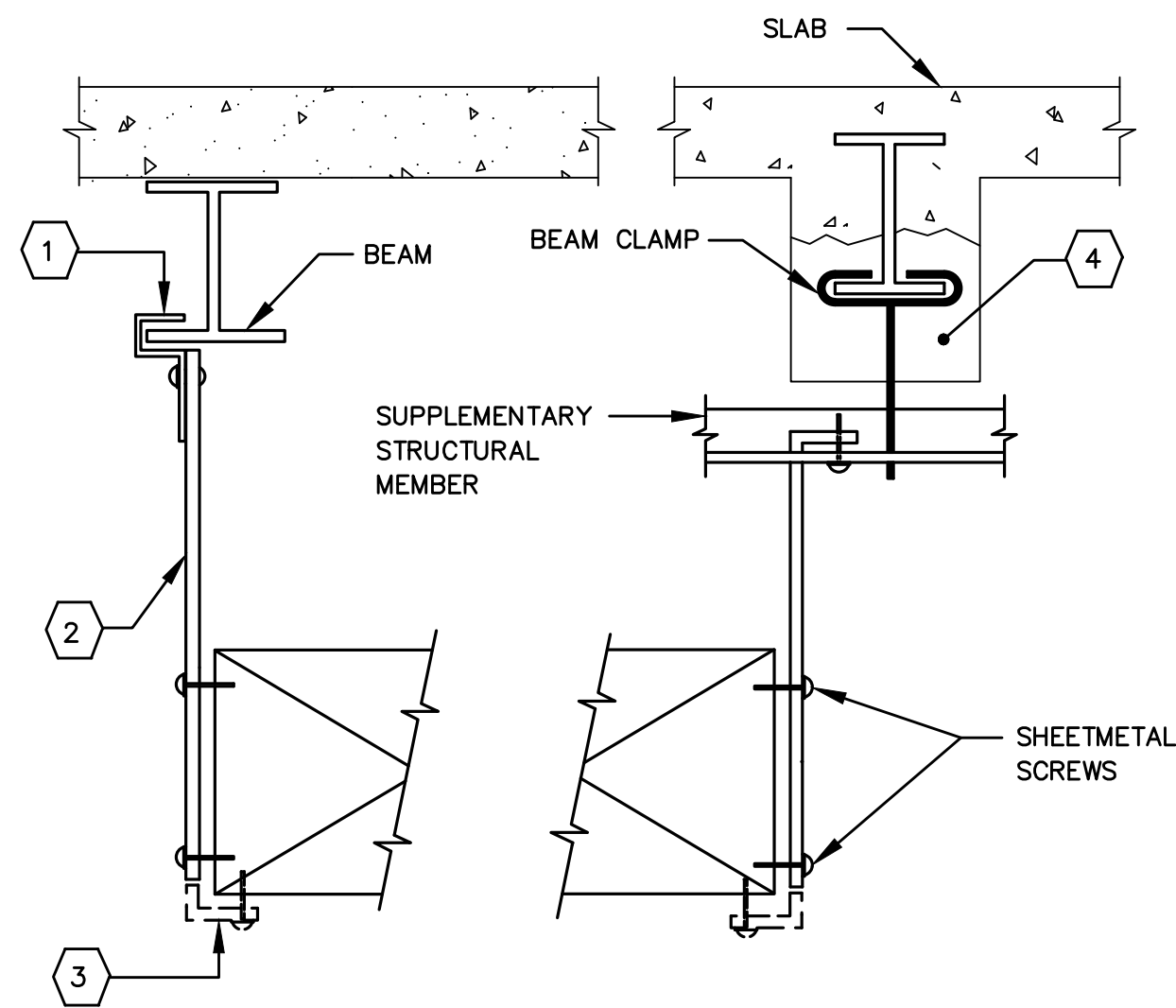


METHOD OF HANGING DUCTWORK



DUCT CONNECTION DETAIL

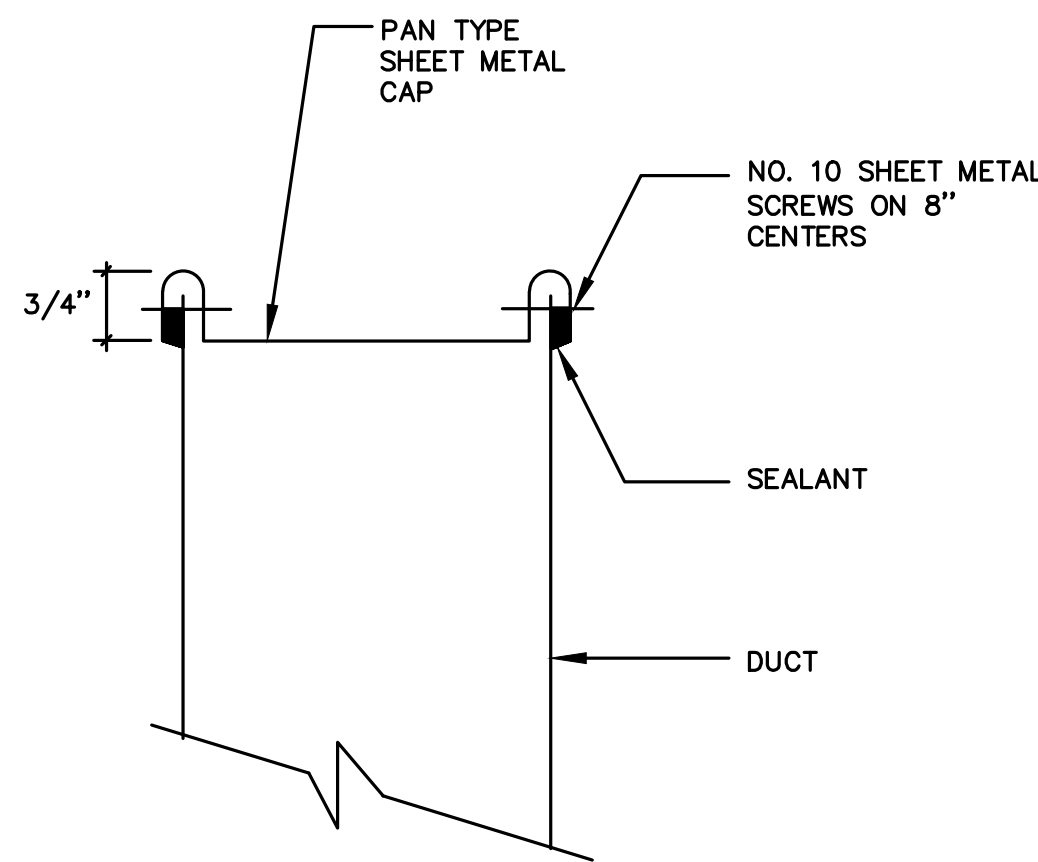
SCALE : N.T.S.



NOTES:

1. H.I.T. OR CADDY BEAM CLIP FOR APPROPRIATE BEAM THICKNESS.
2. BAND IRON HANGER PER CODE OR SMACNA.
3. TURN UNDER WHEN DUCT IS OVER 47" WIDE.
4. TO BE REPLACED WITH METAL LATH & FIREPROOF PLASTER TO ACHIEVE ORIGINAL FIRE RATING.

METHOD OF HANGING DUCTWORK



NOTES:

1. EXTEND AND PATCH INSULATION TO COVER CAP ON EXISTING INSULATED DUCTS
2. PROVIDE DUCT LINING ON CAP ON EXISTING LINED DUCTS.

DUCT CAPPING DETAIL



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

| Symbol | Description | Appr. | Symbol | Date | Appr. |
|--------|-------------------------|----------|--------|------|-------|
| 4 | ISSUED FOR CONSTRUCTION | 09/16/22 | | | |
| 3 | IFC REV. 1 | 02/11/22 | | | |
| 2 | ISSUED FOR CONSTRUCTION | 09/16/21 | | | |
| 1 | 100% DESIGN | 07/16/21 | | | |

| | | | |
|---------------------------------|-------------------|---------------|-------------------|
| Designed by: | Contract Date: | Drawn by: | Contract Date: |
| KUL | NOVEMBER 30, 2020 | WL / MC / AOB | NOVEMBER 30, 2020 |
| Reviewed by: | File Name: | Drwg. Code: | |
| Submitted by: PEREZ APC | | | |
| Plot Date: 1/28/2021 1:28:17 PM | | | |
| Plot Scale: VARIES | | | |
| Issue Date: 01/15/2021 | | | |
| Deliverable Date: 01/15/2021 | | | |

Perez.

MECHANICAL DETAILS

Sheet
Reference
Number

M-501

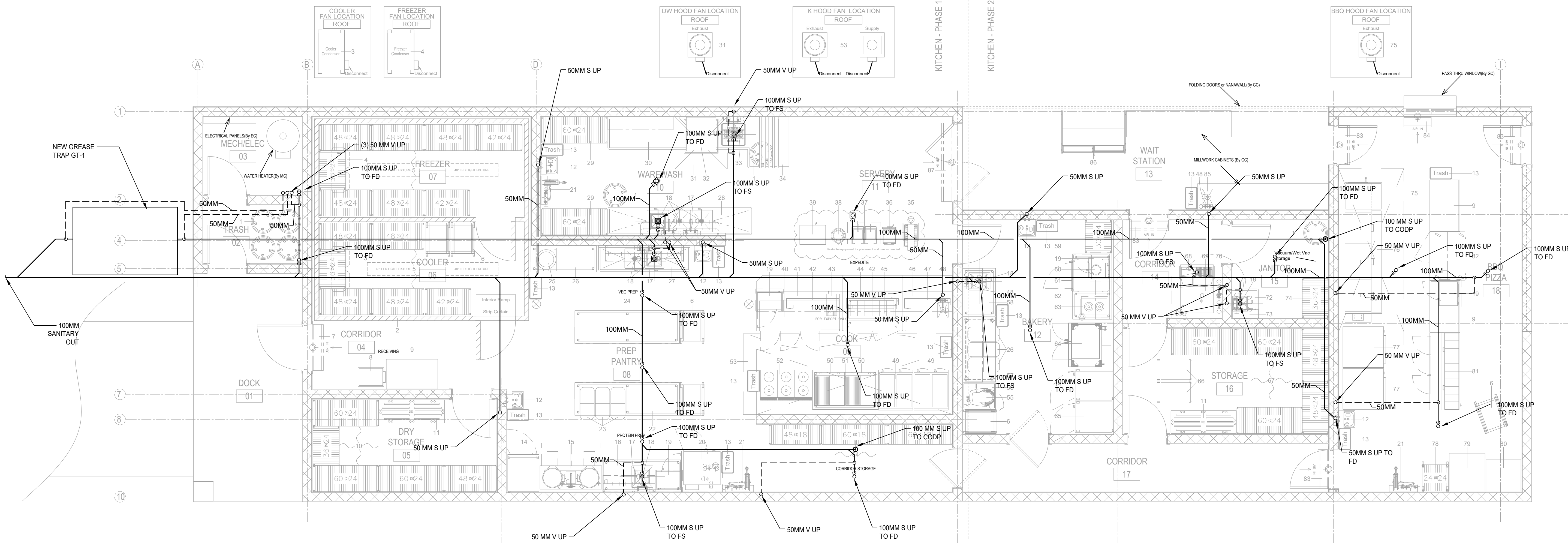
CLIN 0002

4

3

2

1



| EQUIPMENT LEGEND | | | | |
|------------------|---|----|-----|----------|
| 1 | Trash Receptacle-32gal, Dolly, Lid | 7 | ea | GFE |
| 2 | Walk-In Cooler/Freezer Combo | 1 | lot | GFE |
| 3 | Refrigeration-Medium Temp | 1 | lot | GFE |
| 4 | Refrigeration-Low Temp | 1 | lot | GFE |
| 5 | Storage Shelving (Walk-In Cold Storage) | 1 | lot | GFE |
| 6 | Pan Rack | 6 | ea | Existing |
| 7 | Air Curtain-42" | 1 | ea | GFE |
| 8 | Platform Scale | 1 | ea | Existing |
| 9 | Work Table | 3 | ea | Existing |
| 10 | Storage Shelving (Dry Storage) | 1 | lot | GFE |
| 11 | Dunnage Rack-21"x60" | 2 | ea | GFE |
| 12 | Hand Sink-Knee Pedal Hands Free Faucet | 5 | ea | GFE |
| 13 | Trash Receptacle-Tall Slim | 12 | ea | GFE |
| 14 | Refrigerator-1 Section | 2 | ea | GFE |
| 15 | Kettle-Double, Tilting, 12 gal with Stand | 1 | ea | GFE |
| 16 | Work Table-SS, 1 Sink, Overshelf-Pot Shelf | 1 | ea | GFE |
| 17 | Faucet-Splash Mount, 10" Spout | 4 | ea | GFE |
| 18 | Waste Drain-Twist | 8 | ea | GFE |
| 19 | Microwave Oven | 4 | ea | Existing |
| 20 | Combi Oven | 1 | ea | Existing |
| 21 | Washdown Faucet/Hose Reel | 3 | ea | GFE |
| 22 | Work Table-SS, Overshelf | 1 | ea | GFE |
| 23 | Ingredient Bin | 6 | ea | GFE |
| 24 | Work Table-SS, Overshelf | 1 | ea | GFE |
| 25 | Potato Peeler | 1 | ea | Existing |
| 26 | Work Table-SS, Overshelf | 1 | ea | GFE |
| 27 | 2 Comp Sink, Pot Rack-Shelf | 1 | ea | GFE |
| 28 | 3 Comp Sink, Pot Rack | 1 | ea | GFE |
| 29 | Storage Shelving (Warewash) | 1 | lot | GFE |
| 30 | Clean Dishtable-Overshelf | 1 | ea | GFE |
| 31 | Hood System-Condensate (Warewash) | 1 | lot | GFE |
| 32 | Washer | 1 | ea | Existing |
| 33 | Pre-Rinse Faucet | 1 | ea | GFE |
| 34 | Soiled Dishtable-Pre-Rinse Sink, Rack Shelf | 1 | ea | GFE |
| 35 | Heat Lamp | 1 | lot | Existing |
| 36 | Multi Contact Grill | 1 | lot | Existing |
| 37 | Waffle Iron | 1 | lot | Existing |
| 38 | Soup Kettle | 1 | lot | Existing |
| 39 | Salamander Oven | 1 | lot | Existing |
| 40 | Refrigerator-Undercounter | 1 | ea | Existing |
| 41 | Chef Counter-Module 1 | 1 | ea | GFE |
| 42 | Heat Strip-4'-0" | 2 | ea | GFE |
| 43 | Conveyor Toaster | 1 | ea | Existing |
| 44 | Chef Counter-Module 2 | 1 | ea | GFE |
| 45 | Sandwich Prep Refrigerator-12 pan | 1 | ea | GFE |
| 46 | Chef Counter-Module 3 | 1 | ea | GFE |
| 47 | Heat Strip-3'-6" | 1 | ea | GFE |
| 48 | Faucet - Gooseneck Spout | 3 | ea | GFE |
| 49 | Deep Fryer | 2 | ea | Existing |
| 50 | Griddle | 2 | ea | Existing |
| 51 | Equipment Stand | 1 | ea | GFE |
| 52 | Range-6 burners, Oven | 1 | ea | Existing |
| 53 | Hood System (Main Cookline) | 1 | lot | GFE |
| 54 | Storage Shelving (Kitchen Supplies) | 1 | lot | GFE |
| 55 | Mixer-Planetary, 20qt | 1 | ea | GFE |
| 56 | Mixer Stand with Attachment Tree | 1 | ea | GFE |
| 57 | Baker's Table-Overshelf | 1 | ea | GFE |
| 58 | Work Table-SS, 1 Sink | 1 | ea | GFE |
| 59 | Storage Shelving (Bakery Supplies) | 1 | ea | GFE |
| 60 | Gelato Machine | 1 | ea | Existing |
| 61 | Holding/Proofing Cabinet-Undercounter | 1 | ea | GFE |
| 62 | Work Table-Overshelf | 1 | ea | GFE |
| 63 | Hotplate-2 Burner | 1 | ea | GFE |
| 64 | Convection Oven | 1 | ea | GFE |
| 65 | Freezer-1 Section | 1 | ea | GFE |
| 66 | Utility Cart-SS | 2 | ea | GFE |
| 67 | Storage Shelving (Dry Storage) | 1 | lot | GFE |
| 68 | Floor Trough | 1 | ea | GFE |
| 69 | Ice Machine (Head, Bin) | 1 | ea | GFE |
| 70 | Water Filter (Ice) | 1 | ea | GFE |
| 71 | Service/Mop Faucet | 1 | ea | GFE |
| 72 | Mop Sink | 1 | ea | GFE |
| 73 | Utility Shelf-Mop Storage | 1 | ea | GFE |
| 74 | Storage Shelving (Chemical/Janitorial) | 1 | ea | GFE |
| 75 | Hood System-Exhaust Only (BBQ/Pizza) | 1 | lot | GFE |
| 76 | BBQ Grill/Smoker | 1 | ea | GFE |
| 77 | Pizza Oven | 2 | ea | Existing |
| 78 | Storage Shelving (Pizza) | 1 | ea | GFE |
| 79 | Refrigerator/Freezer (Residential) | 1 | ea | Existing |
| 80 | Freezer-Upright (Residential) | 1 | ea | Existing |
| 81 | Pizza Prep-Refrigerated | 1 | ea | Existing |
| 82 | Worktop-Refrigerated, Overshelf | 1 | ea | GFE |
| 83 | Air Curtain-36" | 4 | ea | GFE |
| 84 | Air Curtain-25" | 1 | ea | GFE |
| 85 | Hand Sink-Drop-In | 1 | ea | GFE |
| 86 | Pastry Case-Dual Temp (Cold & Dry) | 1 | ea | GFE |
| 87 | Air Curtain-72" | 1 | ea | GFE |
| 88 | * Spare Number * | | | |
| 89 | * Spare Number * | | | |
| 90 | * Spare Number * | | | |
| 91 | * Spare Number * | | | |
| 92 | * Spare Number * | | | |
| 93 | * Spare Number * | | | |
| 94 | * Spare Number * | | | |
| 95 | * Spare Number * | | | |
| 96 | * Spare Number * | | | |
| 97 | * Spare Number * | | | |
| 98 | * Spare Number * | | | |
| 99 | * Spare Number * | | | |
| 100 | * Spare Number * | | | |

GFE - Government Furnished Equipment

TUKUL



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

| Issued For Construction | Date | Description | Appr. | Date | Appr. |
|-------------------------|----------|-------------------------|-------|------|-------|
| 5 | 09/16/22 | ISSUED FOR CONSTRUCTION | | | |
| 4 | 02/11/22 | IFC REV 1 | | | |
| 3 | 08/16/21 | ISSUED FOR CONSTRUCTION | | | |
| 2 | 07/19/21 | 100% DESIGN | | | |
| 1 | 06/01/21 | 60% DESIGN | | | |

| | | |
|---|-------------------|---|
| Contract Date: NOVEMBER 30, 2020 | Drawn by: | Contract Date: NOVEMBER 30, 2020 |
| File Name: | Dwg. Code: | File Name: |
| Plot Date: VARIES | Submitted by: | Plot Date: VARIES |
| Contract No: AID-OAA-13-0001 172082290003 | Reviewed by: | Contract No: AID-OAA-13-0001 172082290003 |
| Deliverable Date: | Deliverable Date: | |

Perez.

PLUMBING
UNDERGROUND PLAN

Sheet
Reference
Number

P-100

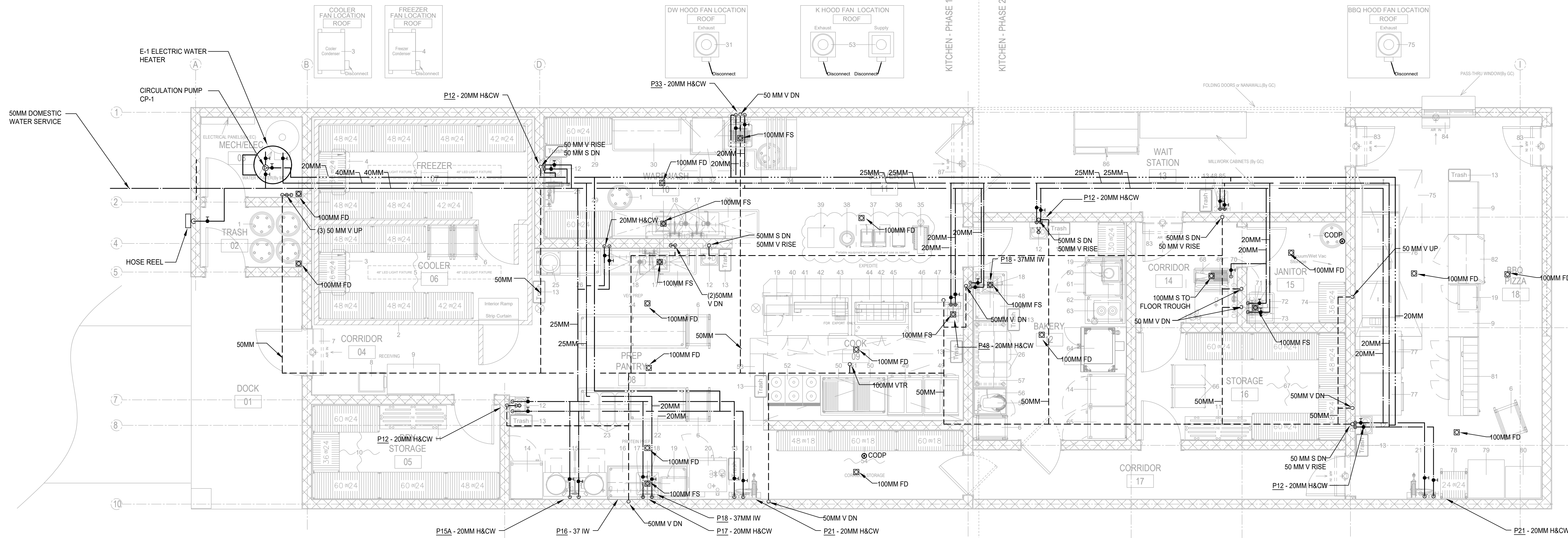
CLIN 0002

4

3

2

1



| EQUIPMENT LEGEND | | | | | | | |
|------------------|--|-------|----------|-----|--|-------|----------|
| 1 | Trash Receptacle-32gal, Dolly, Lid | 7 ea | GFE | 51 | Equipment Stand | 1 ea | GFE |
| 2 | Walk-In Cooler/Freezer Combo | 1 lot | GFE | 52 | Range-6 burners, Oven | 1 ea | Existing |
| 3 | Refrigeration-Medium Temp | 1 lot | GFE | 53 | Hood System (Main Cookline) | 1 lot | GFE |
| 4 | Refrigeration-Low Temp | 1 lot | GFE | 54 | Storage Shelving (Kitchen Supplies) | 1 lot | GFE |
| 5 | Storage Shelving (Walk-In Cold Storage) | 1 lot | GFE | 55 | Mixer-Planetary, 20qt | 1 ea | GFE |
| 6 | Pan Rack | 6 ea | Existing | 56 | Mixer Stand with Attachment Tree | 1 ea | GFE |
| 7 | Air Curtain-42" | 1 ea | GFE | 57 | Baker's Table-Overshelf | 1 ea | GFE |
| 8 | Platform Scale | 1 ea | Existing | 58 | Work Table-SS, 1 Sink | 1 ea | GFE |
| 9 | Work Table | 3 ea | Existing | 59 | Storage Shelving (Bakery Supplies) | 1 ea | GFE |
| 10 | Storage Shelving (Dry Storage) | 1 lot | GFE | 60 | Gelato Machine | 1 ea | Existing |
| 11 | Dunnage Rack-21"x60" | 2 ea | GFE | 61 | Holding/Proofing Cabinet-Undercounter | 1 ea | GFE |
| 12 | Hand Sink-Knee Pedal Hands Free Faucet | 5 ea | GFE | 62 | Work Table-Overshelf | 1 ea | GFE |
| 13 | Trash Receptacle-Tall Slim | 12ea | GFE | 63 | Hotplate-2 Burner | 1 ea | GFE |
| 14 | Refrigerator-1 Section | 2 ea | GFE | 64 | Convection Oven | 1 ea | GFE |
| 15 | Kettle-Double, Tilting, 12 gal with Stand | 1 ea | GFE | 65 | Freezer-1 Section | 1 ea | GFE |
| 16 | Work Table-SS, 1 Sink, Overshelf-Pot Shelf | 1 ea | GFE | 66 | Utility Cart-SS | 2 ea | GFE |
| 17 | Faucet-Splash Mount, 10" Spout | 4 ea | GFE | 67 | Storage Shelving (Dry Storage) | 1 lot | GFE |
| 18 | Waste Drain-Twist | 8 ea | GFE | 68 | Floor Trough | 1 ea | GFE |
| 19 | Microwave Oven | 4 ea | Existing | 69 | Ice Machine (Head, Bin) | 1 ea | GFE |
| 20 | Combi Oven | 1 ea | Existing | 70 | Water Filter (Ice) | 1 ea | GFE |
| 21 | Washdown Faucet/Hose Reel | 3 ea | GFE | 71 | Service/Mop Faucet | 1 ea | GFE |
| 22 | Work Table-SS, Overshelf | 1 ea | GFE | 72 | Mop Sink | 1 ea | GFE |
| 23 | Ingredient Bin | 6 ea | GFE | 73 | Utility Shelf-Mop Storage | 1 ea | GFE |
| 24 | Work Table-SS, Overshelf | 1 ea | GFE | 74 | Storage Shelving (Chemical/Janitorial) | 1 ea | GFE |
| 25 | Potato Peeler | 1 ea | Existing | 75 | Hood System-Exhaust Only (BBQ/Pizza) | 1 lot | GFE |
| 26 | Work Table-SS, Overshelf | 1 ea | GFE | 76 | BBQ Grill/Smoker | 1 ea | GFE |
| 27 | 2 Comp Sink, Pot Rack-Shelf | 1 ea | GFE | 77 | Pizza Oven | 2 ea | Existing |
| 28 | 3 Comp Sink, Pot Rack | 1 ea | GFE | 78 | Storage Shelving (Pizza) | 1 ea | GFE |
| 29 | Storage Shelving (Warewash) | 1 lot | GFE | 79 | Refrigerator/Freezer (Residential) | 1 ea | Existing |
| 30 | Clean Dishable-Overshelf | 1 ea | GFE | 80 | Freezer-Upright (Residential) | 1 ea | Existing |
| 31 | Hood System-Condensate (Warewash) | 1 lot | GFE | 81 | Pizza Prep-Refrigerated | 1 ea | Existing |
| 32 | Warewasher | 1 ea | Existing | 82 | Worktop-Refrigerated, Overshelf | 1 ea | GFE |
| 33 | Pre-Rinse Faucet | 1 ea | GFE | 83 | Air Curtain-36" | 4 ea | GFE |
| 34 | Soiled Dishable-Pre-Rinse Sink, Rack Shelf | 1 ea | GFE | 84 | Air Curtain-25" | 1 ea | GFE |
| 35 | Heat Lamp | 1 lot | Existing | 85 | Hand Sink-Drop-In | 1 ea | GFE |
| 36 | Multi Contact Grill | 1 lot | Existing | 86 | Pastry Case-Dual Temp (Cold & Dry) | 1 ea | GFE |
| 37 | Waffle Iron | 1 lot | Existing | 87 | Air Curtain-72" | 1 ea | GFE |
| 38 | Soup Kettle | 1 lot | Existing | 88 | * Spare Number * | | |
| 39 | Salamander Oven | 1 lot | Existing | 89 | * Spare Number * | | |
| 40 | Refrigerator-Undercounter | 1 ea | Existing | 90 | * Spare Number * | | |
| 41 | Chef Counter-Module 1 | 1 ea | GFE | 91 | * Spare Number * | | |
| 42 | Heat Strip-4'-0" | 2 ea | GFE | 92 | * Spare Number * | | |
| 43 | Conveyor Toaster | 1 ea | Existing | 93 | * Spare Number * | | |
| 44 | Chef Counter-Module 2 | 1 ea | GFE | 94 | * Spare Number * | | |
| 45 | Sandwich Prep Refrigerator-12 pan | 1 ea | GFE | 95 | * Spare Number * | | |
| 46 | Chef Counter-Module 3 | 1 ea | GFE | 96 | * Spare Number * | | |
| 47 | Heat Strip-3'-6" | 1 ea | GFE | 97 | * Spare Number * | | |
| 48 | Faucet - Gooseneck Spout | 3 ea | GFE | 98 | * Spare Number * | | |
| 49 | Deep Fryer | 2 ea | Existing | 99 | * Spare Number * | | |
| 50 | Griddle | 2 ea | Existing | 100 | * Spare Number * | | |

GFE - Government Furnished Equipment

TUKUL



| Issued For Construction | Date | Appr. | Symbol | Description | Date | Appr. |
|-------------------------|----------|-------|--------|-------------|------|-------|
| 5 | 09/16/22 | | | | | |
| 4 | 02/11/22 | | | | | |
| 3 | 08/16/21 | | | | | |
| 2 | 07/19/21 | | | | | |
| 1 | 06/01/21 | | | | | |

| | | | |
|----------------------------------|-----------------|---------------------|--|
| Contract Date: NOVEMBER 30, 2020 | Drawn by: JW | Contract File Name: | Plot Date: VARIES |
| IFC REV. 1 | Reviewed by: RP | | Plot Scale: VARIES |
| ISSUED FOR CONSTRUCTION | Submitted by: | | Contract No: AID-0441-15-0001 / 720842290003 |
| ISSUED FOR CONSTRUCTION | | | Issued Date: Deliverable Date: |

Perez.

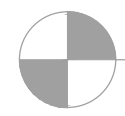
PLUMBING
1ST FLOOR PLAN

Sheet
Reference
Number
P-101

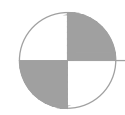
CLIN 0002



ROOF



1ST FLOOR



UNDERGROUND



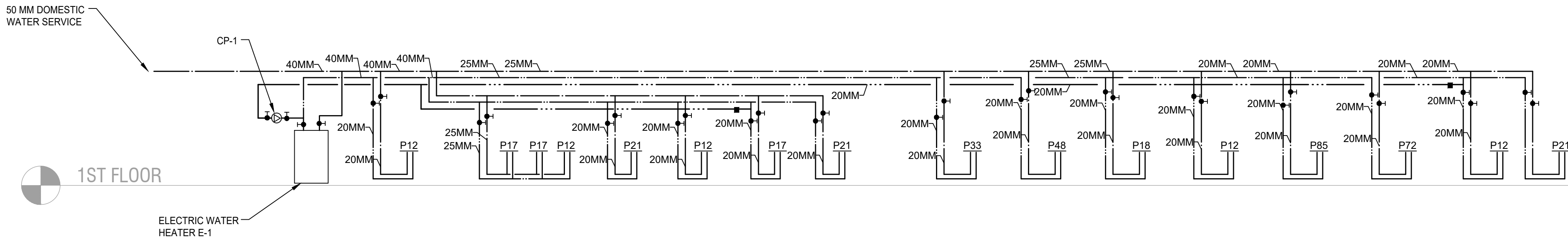
ROOF



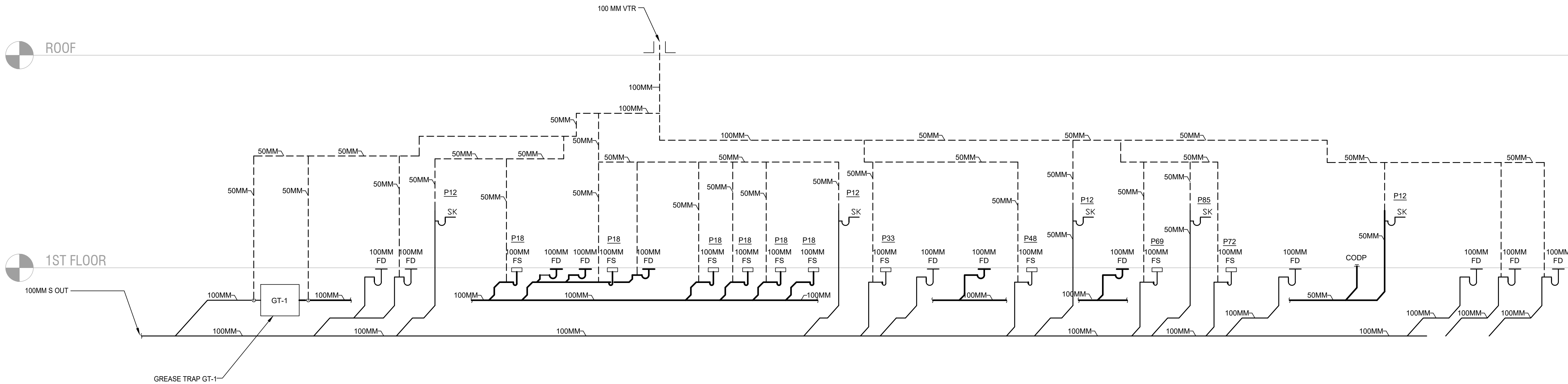
1ST FLOOR



UNDERGROUND



WATER RISER DIAGRAM



SANITARY RISER DIAGRAM



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

| Symbol | Description | Date | Appr. |
|--------|-------------------------|----------|-------|
| 5 | ISSUED FOR CONSTRUCTION | 09/16/22 | |
| 4 | IFC REV. 1 | 02/11/22 | |
| 3 | ISSUED FOR CONSTRUCTION | 08/16/21 | |
| 2 | 100% DESIGN | 07/19/21 | |
| 1 | 60% DESIGN | 06/01/21 | |

| | | |
|--------------------|---------------|-------------------------------------|
| Designed by: JW | Drawn by: | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: RP | Dwg. Code: | File Name: |
| Submitted by: | Plot Date: | Plot Scale: VARIES |
| Revised Date: | Contract No.: | 440120A112-0001 / 7268829-0003 |
| Deliverable Date: | | |

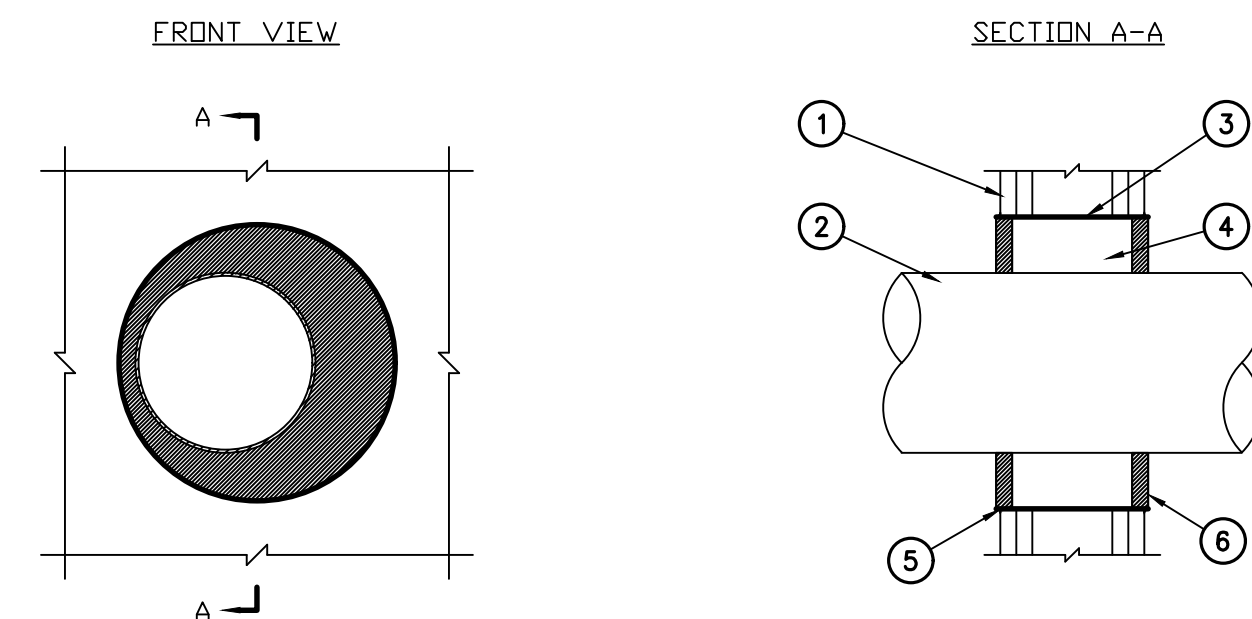
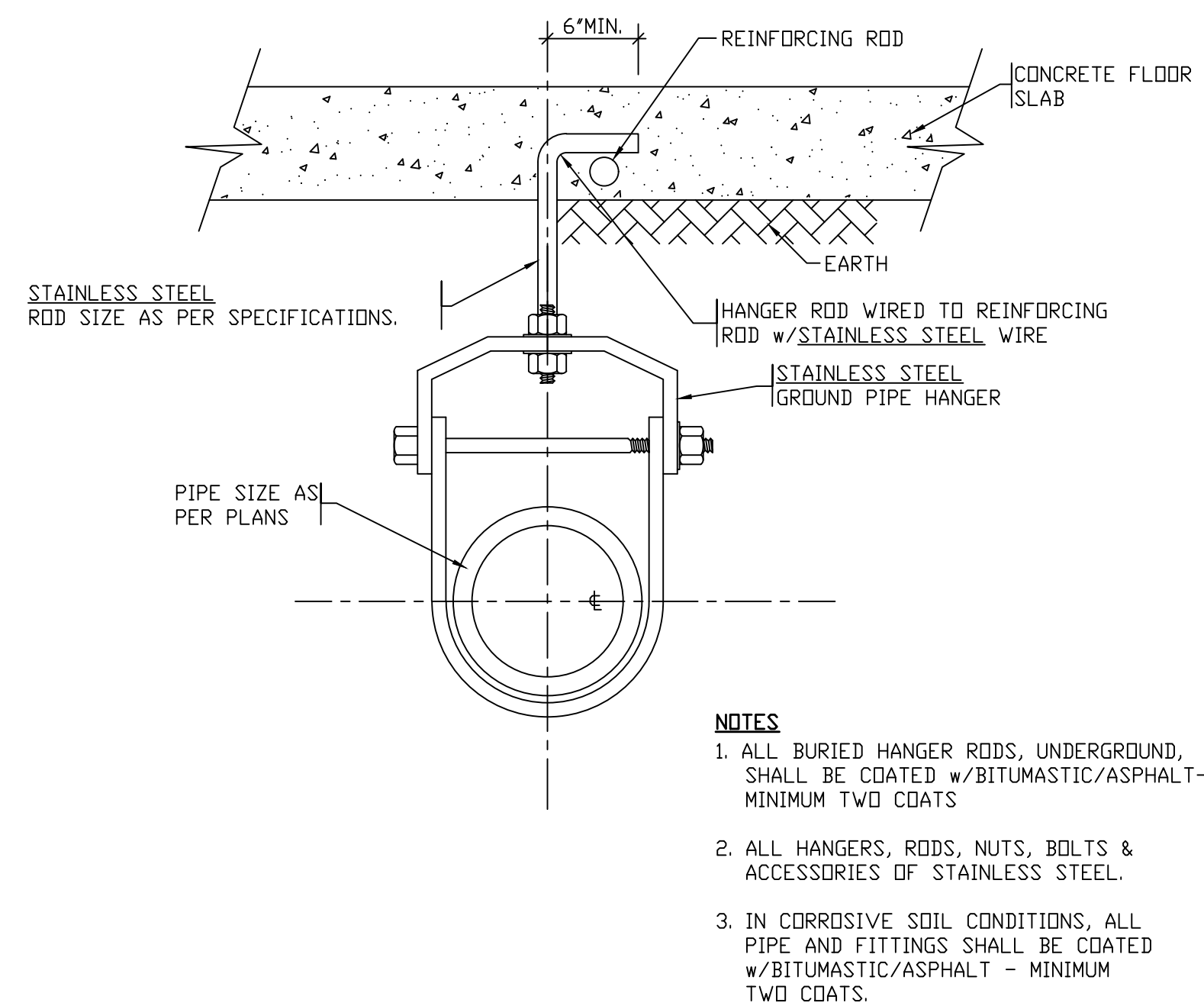
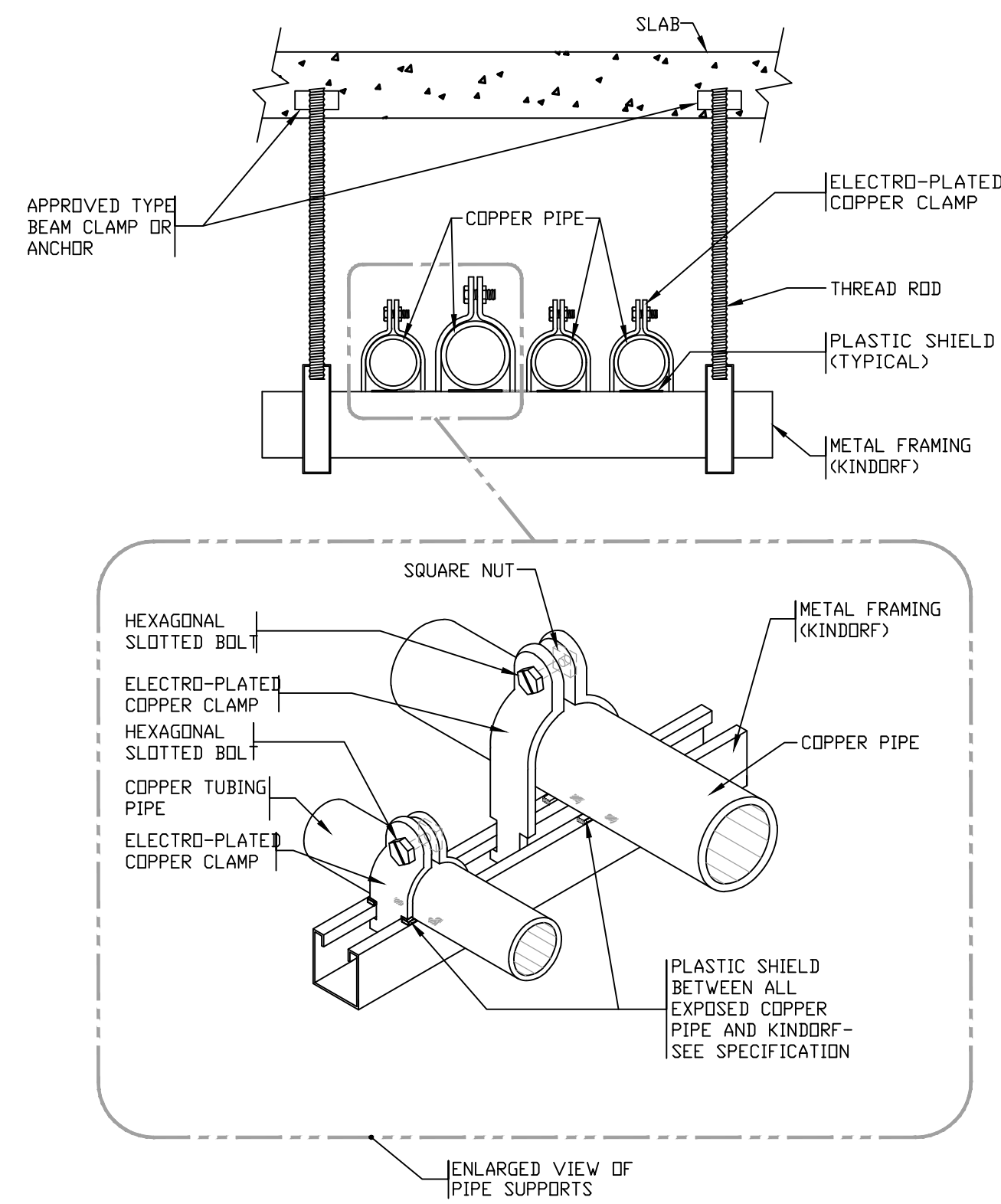
Perez.

PLUMBING
RISER DIAGRAM

Sheet
Reference
Number

P-300

CLIN 0002

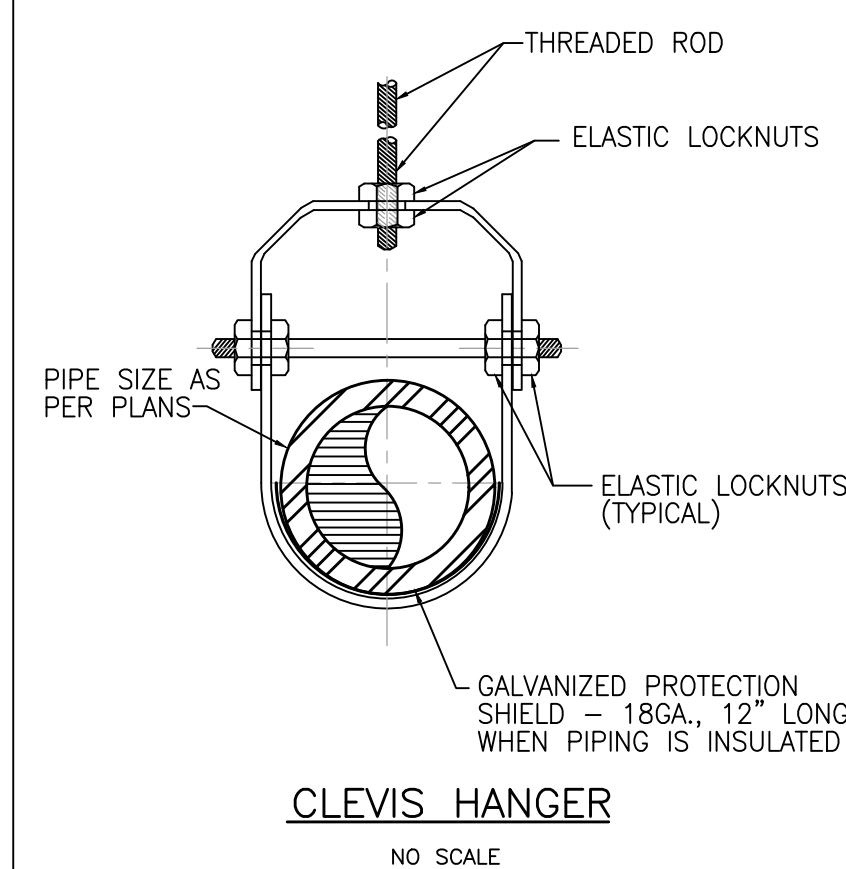
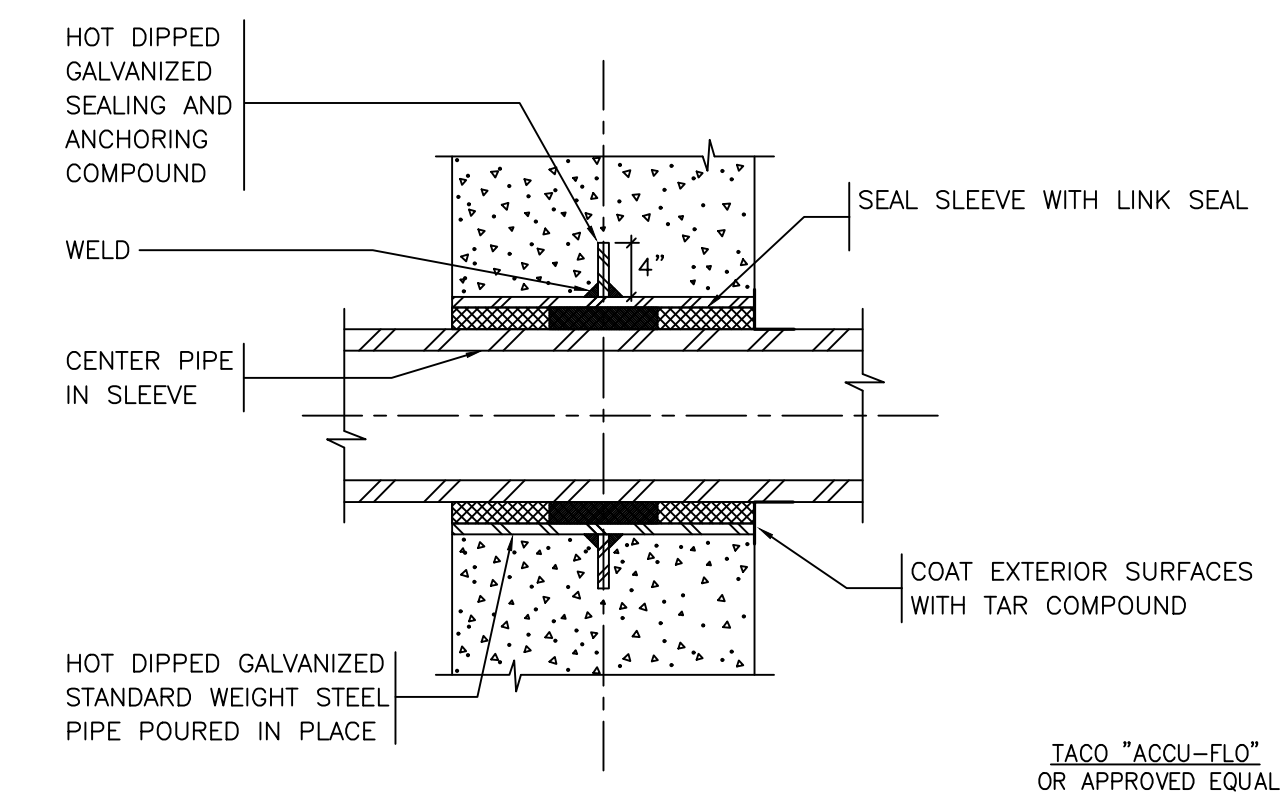
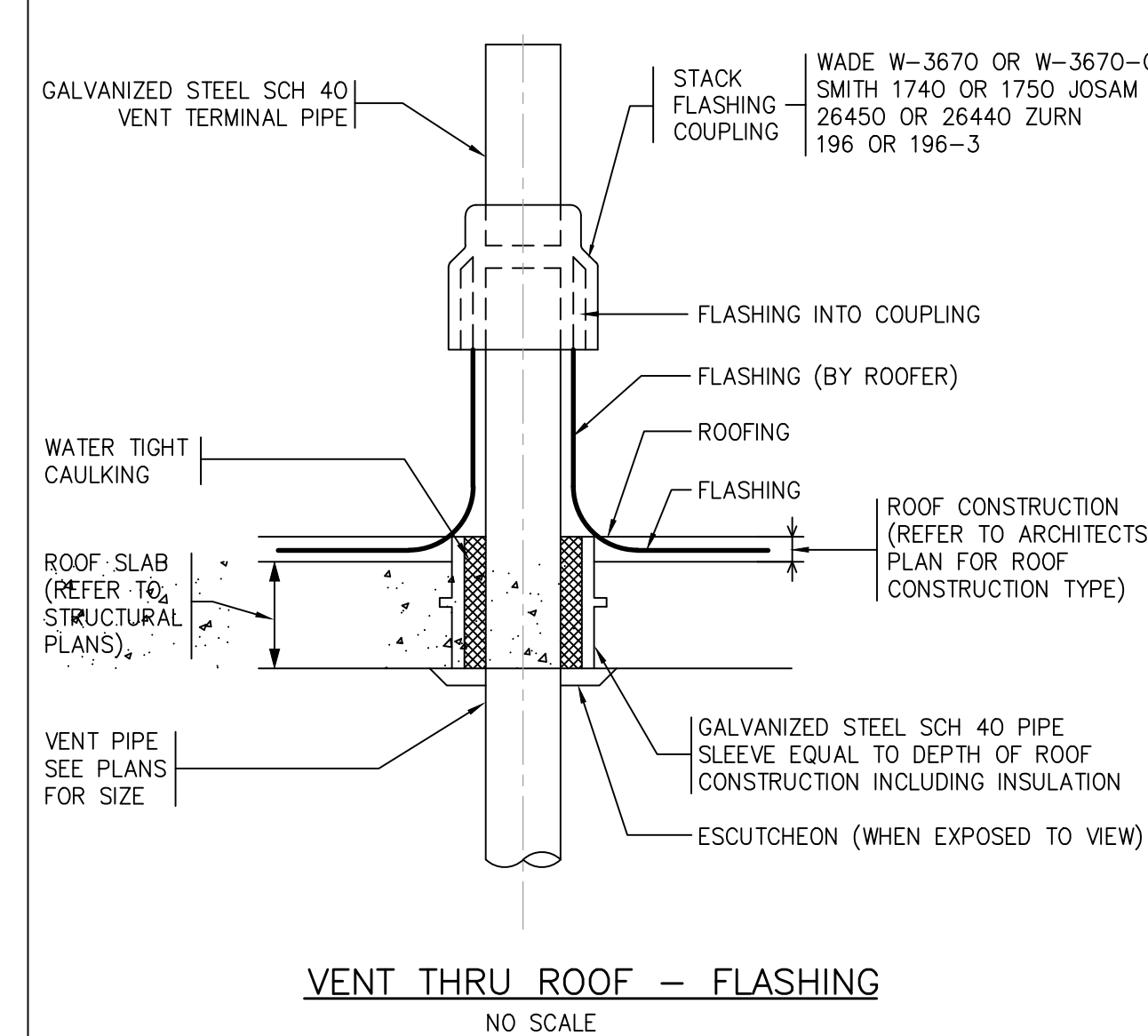
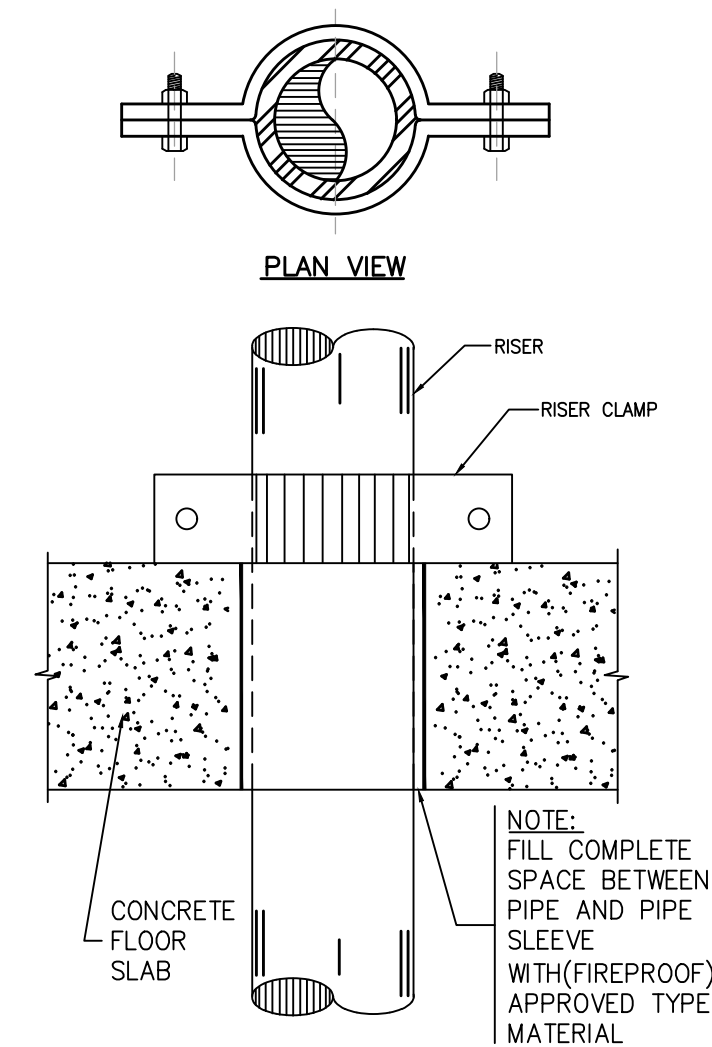


1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 12" NOMINAL DIAMETER STEEL FLEECE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 12" NOMINAL DIAMETER CAST IRON PIPING
 - C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
3. MINIMUM 24 GAUGE SHEET METAL SLEEVE EXTENDING 1/2" PAST EACH SURFACE OF WALL.
4. MINIMUM 4-1/2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
5. A GENEROUS BEAD OF HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AROUND PERIMETER OF SLEEVE.
6. MINIMUM 3/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTE: 1. MAXIMUM DIAMETER OF OPENING = 18-3/4"
2. ANNULAR SPACE = MINIMUM 3/4", MAXIMUM 4-1/2"
3. OPENING SHALL BE 1-1/2" TO 6" LARGER THAN
OUTSIDE DIAMETER OF PIPE.

FIRESTOPPING OF METAL PIPE THROUGH 1-HR OR 2-HR RATED GYPSUM WALL.
NTS

NOTE:
DETAIL IS BASED ON HILTI UL SYSTEM No. WL1056
OTHER MANUFACTURER WILL BE ACCEPTED,
REFER TO SPECIFICATIONS



| PRESSURE VESSELS & HEATERS | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--------------|-------------------------|---------------------------|------------|-----------|------------------------|---------------------|--------------------|-----------------------------|----------------|------------------------------------|---------------------------|------------------|-------------------|---------------------|--------------------|--------------------|-------|-------|-------|-------|--------|
| DESIGNATION | NO. REQUIRED | MODEL | STORAGE WATER TEMPERATURE | GALS./HTR. | TANK SIZE | WATER WORKING PRESSURE | TEST PRESSURE (PSI) | HTR. UNIT (SQ.FT.) | G.P.H./HEATER AT 110°F RISE | TEMP. RISE °F. | GPM HEATING WATER OR LBS. OF STEAM | H.W. VALVE OR STEAM VALVE | TEMP. HTR. HW IN | TEMP. HTR. HW OUT | K.W./SINGLE ELEMENT | K.W./UPPER ELEMENT | K.W./LOWER ELEMENT | VOLTS | PHASE | CYCLE | STEPS | REMARK |
| E-1 | 1 | HUBBELL SH225-0-160SLT7 | 140°F | 225 | | 150 PSI | 300 | | | 100°F | | | 40°F | 120°F | 160 | | | 415 | 3 | 50 | | |

[illegible]

| | | |
|--------------------|---|-------------------------------------|
| Designed by: JW | Drawn by: | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: RP | Drwg. Code: | File Name: |
| Submitted by: | Plot Date: | Contract No: |
| | Plot Scale: VARIES | |
| Issued Date: | <small> 1. 10/10/2020 10:10:10 AM 2. 10/10/2020 10:10:10 AM 3. 10/10/2020 10:10:10 AM 4. 10/10/2020 10:10:10 AM 5. 10/10/2020 10:10:10 AM 6. 10/10/2020 10:10:10 AM 7. 10/10/2020 10:10:10 AM 8. 10/10/2020 10:10:10 AM 9. 10/10/2020 10:10:10 AM 10. 10/10/2020 10:10:10 AM 11. 10/10/2020 10:10:10 AM 12. 10/10/2020 10:10:10 AM 13. 10/10/2020 10:10:10 AM 14. 10/10/2020 10:10:10 AM 15. 10/10/2020 10:10:10 AM 16. 10/10/2020 10:10:10 AM 17. 10/10/2020 10:10:10 AM 18. 10/10/2020 10:10:10 AM 19. 10/10/2020 10:10:10 AM 20. 10/10/2020 10:10:10 AM 21. 10/10/2020 10:10:10 AM 22. 10/10/2020 10:10:10 AM 23. 10/10/2020 10:10:10 AM 24. 10/10/2020 10:10:10 AM 25. 10/10/2020 10:10:10 AM 26. 10/10/2020 10:10:10 AM 27. 10/10/2020 10:10:10 AM 28. 10/10/2020 10:10:10 AM 29. 10/10/2020 10:10:10 AM 30. 10/10/2020 10:10:10 AM 31. 10/10/2020 10:10:10 AM 32. 10/10/2020 10:10:10 AM 33. 10/10/2020 10:10:10 AM 34. 10/10/2020 10:10:10 AM 35. 10/10/2020 10:10:10 AM 36. 10/10/2020 10:10:10 AM 37. 10/10/2020 10:10:10 AM 38. 10/10/2020 10:10:10 AM 39. 10/10/2020 10:10:10 AM 40. 10/10/2020 10:10:10 AM 41. 10/10/2020 10:10:10 AM 42. 10/10/2020 10:10:10 AM 43. 10/10/2020 10:10:10 AM 44. 10/10/2020 10:10:10 AM 45. 10/10/2020 10:10:10 AM 46. 10/10/2020 10:10:10 AM 47. 10/10/2020 10:10:10 AM 48. 10/10/2020 10:10:10 AM 49. 10/10/2020 10:10:10 AM 50. 10/10/2020 10:10:10 AM 51. 10/10/2020 10:10:10 AM 52. 10/10/2020 10:10:10 AM 53. 10/10/2020 10:10:10 AM 54. 10/10/2020 10:10:10 AM 55. 10/10/2020 10:10:10 AM 56. 10/10/2020 10:10:10 AM 57. 10/10/2020 10:10:10 AM 58. 10/10/2020 10:10:10 AM 59. 10/10/2020 10:10:10 AM 60. 10/10/2020 10:10:10 AM 61. 10/10/2020 10:10:10 AM 62. 10/10/2020 10:10:10 AM 63. 10/10/2020 10:10:10 AM 64. 10/10/2020 10:10:10 AM 65. 10/10/2020 10:10:10 AM 66. 10/10/2020 10:10:10 AM 67. 10/10/2020 10:10:10 AM 68. 10/10/2020 10:10:10 AM 69. 10/10/2020 10:10:10 AM 70. 10/10/2020 10:10:10 AM 71. 10/10/2020 10:10:10 AM 72. 10/10/2020 10:10:10 AM 73. 10/10/2020 10:10:10 AM 74. 10/10/2020 10:10:10 AM 75. 10/10/2020 10:10:10 AM 76. 10/10/2020 10:10:10 AM 77. 10/10/2020 10:10:10 AM 78. 10/10/2020 10:10:10 AM 79. 10/10/2020 10:10:10 AM 80. 10/10/2020 10:10:10 AM 81. 10/10/2020 10:10:10 AM 82. 10/10/2020 10:10:10 AM 83. 10/10/2020 10:10:10 AM 84. 10/10/2020 10:10:10 AM 85. 10/10/2020 10:10:10 AM 86. 10/10/2020 10:10:10 AM 87. 10/10/2020 10:10:10 AM 88. 10/10/2020 10:10:10 AM 89. 10/10/2020 10:10:10 AM 90. 10/10/2020 10:10:10 AM 91. 10/10/2020 10:10:10 AM 92. 10/10/2020 10:10:10 AM 93. 10/10/2020 10:10:10 AM 94. 10/10/2020 10:10:10 AM 95. 10/10/2020 10:10:10 AM 96. 10/10/2020 10:10:10 AM 97. 10/10/2020 10:10:10 AM 98. 10/10/2020 10:10:10 AM 99. 10/10/2020 10:10:10 AM 100. 10/10/2020 10:10:10 AM 101. 10/10/2020 10:10:10 AM 102. 10/10/2020 10:10:10 AM 103. 10/10/2020 10:10:10 AM 104. 10/10/2020 10:10:10 AM 105. 10/10/2020 10:10:10 AM 106. 10/10/2020 10:10:10 AM 107. 10/10/2020 10:10:10 AM 108. 10/10/2020 10:10:10 AM 109. 10/10/2020 10:10:10 AM 110. 10/10/2020 10:10:10 AM 111. 10/10/2020 10:10:10 AM 112. 10/10/2020 10:10:10 AM 113. 10/10/2020 10:10:10 AM 114. 10/10/2020 10:10:10 AM 115. 10/10/2020 10:10:10 AM 116. 10/10/2020 10:10:10 AM 117. 10/10/2020 10:10:10 AM 118. 10/10/2020 10:10:10 AM 119. 10/10/2020 10:10:10 AM 120. 10/10/2020 10:10:10 AM 121. 10/10/2020 10:10:10 AM 122. 10/10/2020 10:10:10 AM 123. 10/10/2020 10:10:10 AM 124. 10/10/2020 10:10:10 AM 125. 10/10/2020 10:10:10 AM 126. 10/10/2020 10:10:10 AM 127. 10/10/2020 10:10:10 AM 128. 10/10/2020 10:10:10 AM 129. 10/10/2020 10:10:10 AM 130. 10/10/2020 10:10:10 AM 131. 10/10/2020 10:10:10 AM 132. 10/10/2020 10:10:10 AM 133. 10/10/2020 10:10:10 AM 134. 10/10/2020 10:10:10 AM 135. 10/1</small> | |

ELECTRICAL SYMBOL LEGEND

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

WIRING AND MISCELLANEOUS DEVICES

| | |
|--|--|
| | CEILING OUTLET - RECESS LED LUMINAIRE |
| | CEILING OUTLET - PENDENT LED LUMINAIRE, EMERGENCY BATTERY PACK |
| | CEILING OUTLET - RECESS DOWNLIGHT LUMINAIRE, |
| | CEILING OUTLET - SURFACE OR PENDANT INDUSTRIAL LED |
| | CEILING OUTLET - SURFACE OR PENDANT INDUSTRIAL LED, EMERGENCY BATTERY PACK |
| | CEILING OUTLET - EXIT LIGHT LUMINAIRE, SINGLE FACE |
| | CEILING OUTLET - EXIT LIGHT LUMINAIRE, DOUBLE FACE |
| | WALL OUTLET - WITH LED BRACKET LUMINAIRE |
| | WALL OUTLET - WITH BRACKET LUMINAIRE |
| | WALL OUTLET - WITH EXIT LIGHT LUMINAIRE, FLAT WALL MOUNTED |
| | WALL OUTLET - WITH EXIT LIGHT LUMINAIRE, EXTENDED SIDE MOUNTED |
| | WALL OUTLET - SINGLE RECEPTACLE, TYPE G |
| | WALL OUTLET - DUPLEX RECEPTACLE, TYPE G 13A |
| | WALL OUTLET - DUPLEX RECEPTACLE MTD ABOVE COMPUTER, GFCI, TYPE G |
| | WALL OUTLET - DUPLEX RECEPTACLE, MTD ABOVE COUNTER, TYPE G |
| | WALL OUTLET - DOUBLE DUPLEX RECEPTACLE, TWO DUPLEX TYPE G |
| | WALL OUTLET - DUPLEX RECEPTACLE, GFCI TYPE G |
| | WALL OUTLET - DUPLEX RECEPTACLE, GFCI TYPE G (WEATHERPROOF) |
| | WALL OUTLET - SINGLE RECEPTACLE, TYPE M |
| | WALL SWITCH - TOGGLE TYPE |
| | WALL SWITCH - TOGGLE TYPE, 2-WAY |
| | WALL SWITCH - MANUAL MOTOR STARTER |
| | WALL SWITCH - CONTROLS OUTLET "a" (TYP) |
| | WALL SWITCH - DIMMER |
| | WALL SWITCH - 3-SPEED FAN CONTROL |
| | JUNCTION BOX - SIZE NOTED OR REQUIRED |
| | JUNCTION BOX - SIZE NOTED OR REQUIRED WITH EQUIPMENT CONNECTION |
| | PEDESTAL OUTLET - DUPLEX RECEPTACLE, TYPE G |
| | PEDESTAL OUTLET - DOUBLE DUPLEX RECEPTACLE, TWO TYPE G |
| | PEDESTAL OUTLET - J-BOX WITH FLEXIBLE CONNECTION |

GROUNDING

| | |
|--|---|
| | GROUNDING ELECTRODE CONNECTION |
| | SURGE ARRESTOR WITH GROUNDING CONNECTION |
| | SURGE PROTECTIVE DEVICE |
| | BARE CU GRD CONDUCTOR BELOW GRADE |
| | DRIVEN GRD ROD CONNECTED TO GRD CONDUCTOR |

LIGHTNING PROTECTION

| | |
|--|--|
| | LIGHTNING PROTECTION SYSTEM - AIR TERMINAL WITH SWIVEL BASE |
| | LIGHTNING PROTECTION SYSTEM - AIR TERMINAL SIDE MOUNTED |
| | LIGHTNING PROTECTION SYSTEM - PENETRATION DEVICE |
| | LIGHTNING PROTECTION SYSTEM - GENERAL BONDING CONNECTION POINT |
| | LIGHTNING PROTECTION SYSTEM - BONDING CONNECTION WITH PIPE CLAMP TO VENT PIPE OR CONDUIT |
| | LIGHTNING PROTECTION SYSTEM - BONDING CONNECTION TO SPECIFIC ITEM NOTED |
| | LIGHTNING PROTECTION SYSTEM - DRIVEN GROUND ROD |
| | LIGHTNING PROTECTION SYSTEM - MAIN ROOF CONDUCTOR SYSTEM |
| | LIGHTNING PROTECTION SYSTEM - DOWN LEAD CONDUCTOR SYSTEM |
| | LIGHTNING PROTECTION SYSTEM - GROUNDING CONDUCTOR BELOW GRADE |
| | LIGHTNING PROTECTION SYSTEM - FENCE GROUND |

DETAIL AND SECTION DESIGNATIONS

| | |
|--|---|
| | DETAIL IDENTIFICATION |
| | SECTION IDENTIFICATION |
| | ELEVATION IDENTIFICATION |
| | TYPICAL NOTE REFERENCE |
| | SEE |
| | SHEET ON WHICH DRAWN |
| | DETAIL, SECTION OR ELEVATION IDENTIFICATION |
| | DETAIL, SECTION OR ELEVATION |

EQUIPMENT

| | |
|--|---|
| | SWITCHBOARD/DISTRIBUTION BOARD |
| | DISTRIBUTION BOARD OR CONSUMER UNIT |
| | TERMINAL CABINET |
| | DISCONNECT SWITCH (ISOLATOR) |
| | DISCONNECT SWITCH (ISOLATOR) - FUSIBLE TYPE |
| | ENCLOSED CIRCUIT BREAKER |
| | CONTACTOR |
| | TIME SWITCH |
| | PHOTO CELL |
| | TRANSFORMER |
| | MOTOR - SIZE AND CHARACTERISTICS INDICATED |
| | MOTOR CONTROLLER |
| | COMBINATION CONTROLLER/DISCONNECT SWITCH |
| | EXHAUST FAN |
| | WATER HEATER |
| | THERMOSTAT |
| | FAN COIL UNIT |
| | POWER METER ASSEMBLY |

MISCELLANEOUS DEVICES

| | |
|--|---|
| | CONTROL PANEL |
| | EMERGENCY LIGHTING PACK WITH ADJUSTABLE HEADS |
| | SURGE PROTECTIVE DEVICE |

AUXILIARY SYSTEMS

| | |
|--|--|
| | TELECOMMUNICATIONS SYSTEM - TERMINAL BACKBOARD |
| | TELECOMMUNICATIONS SYSTEM - WALL OUTLET (DATA) |
| | TELECOMMUNICATIONS SYSTEM - WALL OUTLET MTD ABOVE COUNTER (DATA) |
| | TELECOMMUNICATIONS SYSTEM - WALL OUTLET (VOICE/DATA) |
| | TELECOMMUNICATIONS SYSTEM - FLOOR OUTLET (VOICE/DATA-COMBINATION TYPE W/POWER) |
| | TELECOMMUNICATIONS SYSTEM - J-BOX, EXTERIOR RATED |
| | TELECOMMUNICATIONS SYSTEM - CONDUIT, EMPTY WITH PULLWIRE (27mmC) |
| | CABLE SYSTEM - J-BOX, EXTERIOR RATED |
| | CABLE TV SYSTEM - WALL OUTLET |
| | CABLE TV SYSTEM - CONDUIT, EMPTY WITH PULLWIRE (21mmC) |

FIRE ALARM

| | |
|--|---|
| | FIRE ALARM SYSTEM - FIRE ALARM SYSTEM CONTROL PANEL |
| | FIRE ALARM SYSTEM - SMOKE DETECTOR |
| | FIRE ALARM SYSTEM - DUCT MOUNTED SMOKE DETECTOR |
| | FIRE ALARM SYSTEM - HEAT DETECTOR |
| | FIRE ALARM SYSTEM - MANUAL PULL STATION |
| | FIRE ALARM SYSTEM - SPEAKER/STROBE, WALL MOUNTED |
| | FIRE ALARM SYSTEM - SPEAKER/STROBE, WALL MOUNTED, WEATHER PROOF |
| | FIRE ALARM SYSTEM - SUPERVISED CIRCUITING IN CONDUIT |

BRANCH CIRCUIT WIRING DESIGNATIONS

| INSTALLATION | SIZING |
|---|--------------------|
| | BELOW GRADE |
| | CONCEALED |
| | SURFACE |
| NOTES: | |
| 1. ALL BRANCH CIRCUITS TO CONTAIN A GROUND CONDUCTOR. | |
| | 2 X 4mm2 + 4mm2(E) |
| | 3 X 4mm2 + 4mm2(E) |
| | 2 X 6mm2 + 6mm2(E) |
| | 3 X 6mm2 + 6mm2(E) |
| ETC..... | |

GENERAL LEGEND DEFINITIONS

CEILING OUTLET - BOX, FLANGE, SUPPORT, ETC.
WALL OUTLET - BOX, FLANGE, SUPPORT WITH LUMINAIRE OR DEVICE & DEVICE PLATE.
WALL SWITCH - BOX, FLANGE, SUPPORT, DEVICE & DEVICE PLATE.
JUNCTION BOX - BOX, SUPPORT & COVER.
BRANCH CIRCUIT - CONDUIT, CONDUCTORS & CONTINUOUS GROUNDING PATH.
(SEE DESIGNATION BLOCKS)
EQUIPMENT GROUND - CONDUCTOR FOR CONNECTING NONCURRENT CARRYING METAL PARTS OF EQUIPMENT, ENCLOSURES, RACEWAYS, ETC., SIZED IN ACCORDANCE WITH CODES.

KEY DESIGNATIONS

| MARK | PURPOSE | NOTES |
|------|---------------------|---|
| | DIMENSION REFERENCE | SEE CORRESPONDING DIMENSION BLOCK APPLICABLE LETTER INDICATED |
| | KEY NOTE REFERENCE | SEE CORRESPONDING KEY NOTE APPLICABLE NUMBER INDICATED |
| | EQUIPMENT REFERENCE | SEE CORRESPONDING EQUIPMENT SCHEDULE COORDINATE WITH APPLICABLE DIVISIONS |
| | FEEDER REFERENCE | SEE CORRESPONDING FEEDER SCHEDULE APPLICABLE LETTER INDICATED |

ABBREVIATIONS

| | | | |
|--------|---|----------|---|
| @ | AT | J-BOX | JUNCTION BOX |
| & | AND | k | KILO (1000) |
| 1PH | SINGLE-PHASE | kCML | KILO CIRCULAR MILS |
| 1P | SINGLE POLE | kV | KILO VOLTS |
| 1WAY | ONE-WAY | kVA | KILO VOLT - AMPERES |
| 2/C | TWO-CONDUCTOR | kW | KILO WATTS |
| 2WAY | TWO-WAY | LFMC | LIQUIDTIGHT FLEXIBLE METAL CONDUIT |
| 3/C | THREE-CONDUCTOR | LFNC | LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT |
| 3PH | THREE-PHASE | LOT | LIGHTING |
| 3WAY | THREE-WAY | LTNG | LIGHTNING |
| 4/C | FOUR-CONDUCTOR | LV | LOW VOLTAGE |
| 4OUT | QUADRUPLE RECEPTACLE OUTLET | LVPGB | LOW VOLTAGE POWER CIRCUIT BREAKER |
| 4PDT | FOUR-POLE DOUBLE THROW | MFR | MANUFACTURER |
| 4PST | FOUR-POLE SINGLE THROW | MAX | MAXIMUM |
| 4W | FOUR-WIRE | MCB | MAIN CIRCUIT BREAKER |
| 4WAY | FOUR-WAY | MCC | MOTOR CONTROL CENTER |
| AB | ABOVE | MCCB | MOLDED CASE CIRCUIT BREAKER |
| AC | ALTERNATING CURRENT/ARMORED CABLE | MCM | 1000 CIRCULAR MILS |
| A/C | AIR CONDITIONING | MECH | MECHANICAL |
| ACB | AIR CIRCUIT BREAKER | MH | MANHOLE |
| AFC | ABOVE FINISH CEILING | MIN | MINIMUM |
| AFF | ABOVE FINISH FLOOR | MISC | MISCELLANEOUS |
| AFG | ABOVE FINISH GRADE | MLO | MAIN LUGS ONLY |
| AFS | ABOVE FINISH SLAB | MTD | MOUNTED |
| AHJ | AUTHORITY HAVING JURISDICTION | MTG | MOUNTING |
| AIC | AMPERE INTERRUPTING CAPACITY | MTS | MANUAL TRANSFER SWITCH |
| ALUM | ALUMINUM | MV | MEDIUM VOLTAGE |
| AMP | AMPERE | NEUT | NEUTRAL |
| APPROX | APPROXIMATE(LY) | NA | NOT APPLICABLE |
| ARCH | ARCHITECT(URAL) | N.C. | NORMALLY CLOSED |
| ASC | ABOVE SUSPENDED CEILING | NEC | NATIONAL ELECTRICAL CODE |
| ATS | AUTOMATIC TRANSFER SWITCH | NEMA | NATIONAL ELECTRICAL MANUFACTURER'S ASSO. |
| AUX | AUXILIARY | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| AWG | AMERICAN WIRE GAGE | NL | NIGHT LIGHT |
| BKBD | BACKBOARD | N.O. | NORMALLY OPEN |
| BRKR | BREAKER | NO. OR # | NUMBER |
| BLDG | BUILDING | OCPPD | OVER CURRENT PROTECTION DEVICE |
| CAB | CABINET | OD | OUTSIDE DIAMETER |
| CCU | CENTRAL CONTROL UNIT | OL | OVER LOAD |
| CF | CONTRACTOR FURNISHED | P | POLE |
| CFE | CONTRACTOR FURNISHED EQUIPMENT | PEC | PARALLEL EARTHING CONDUCTOR |
| CF/CI | CONTRACTOR FURNISHED & CONTRACTOR INSTALLED | PF | POWER FACTOR |
| CF/OI | CONTRACTOR FURNISHED & OWNER INSTALLED | PH OR Ø | PHASE |
| CKT | CIRCUIT | PMS | PAD MOUNTED SWITCH |
| CL | CURRENT LIMITING | PMT | PAD MOUNTED TRANSFORMER |
| CLG | CEILING | PNL | PANEL |
| CND | CONDUIT | PRI | PRIMARY |
| CP | CONTROL PANEL | PROVIDE | FURNISH AND INSTALL |
| CPT | CONTROL POWER TRANSFORMER | PT | POTENTIAL TRANSFORMER |
| CPU | CENTRAL PROCESS UNIT | PVC | POLYVINYL CHLORIDE |
| CT | CURRENT TRANSFORMER | PW | PART WINDING |
| CTRL | CONTROL | REF | REFERENCE |
| CTV | CABLE TELEVISION | REQD | REQUIRED |
| CU | COPPER | RLA | RATED LOAD AMPERES |
| CW | COLD WATER PIPING | RM | ROOM |
| DB | DIRECT BURIAL | RMC | RIGID METALLIC CONDUIT |
| DC | DIRECT CURRENT | RNC | RIGID NONMETALLIC CONDUIT |
| DG | DEGREE | ROR | RATE-OF-RISER |
| DETD | DUAL ELEMENT TIME DELAY | RT | RAINTIGHT |
| DIR | DIRECTION | SC | SHORT CIRCUIT |
| DISC | DISCONNECT SWITCH | SCC | SHORT CIRCUIT CAPACITY |
| DN | DOWN | SCCR | SHORT CIRCUIT CURRENT RATING |
| DPST | DOUBLE POLE - SINGLE THROW | SCHED | SCHEDULE |
| DPDT | DOUBLE POLE - DOUBLE THROW | SD | SERVICE DROP |
| EA | EACH | SE | SERVICE ENTRANCE |
| EMCS | ENERGY MANAGEMENT CONTROL SYSTEM | SEC | SECONDARY |
| EMCP | ENERGY MONITORING CONTROL PANEL | SF6 | GAS CIRCUIT BREAKER |
| EMER | EMERGENCY | SHT | SHEET |
| EMT | ELECTRICAL METALLIC TUBING | SI | INTERNATIONAL SYSTEM OF UNITS |
| EPRF | EXPLOSION PROOF | SL | SERVICE LATERAL |
| EQUIP | EQUIPMENT | SLD | SINGLE LINE DIAGRAM |
| ES | ENERGY SAVINGS | SMR | SURFACE METALLIC RACEWAY |
| EWC | ELECTRIC WATER COOLER | SN | SOLID NEUTRAL |
| EXH | EXHAUST | SPECS | SPECIFICATIONS |
| F | FUSE | SPDT | SINGLE POLE - DOUBLE THROW |
| FA | FIRE ALARM | SPST | SINGLE POLE - SINGLE THROW |
| FACP | FIRE ALARM CONTROL PANEL | SS | STAINLESS STEEL |
| FIN | FINISH | STATCOM | STATIC REACTIVE COMPENSATION |
| FLR | FLOOR | STS | STATIC TRANSFER SWITCH |
| FLA | FULL LOAD AMPERES (NAME PLATE DATA) | SVC | STATIC VAR COMPENSATION |
| FLO | FULL LOAD CURRENT (CODE TABLES) | SW | SWITCH |
| FLMT | FLUSH MOUNT | SWBD | SWITCH BOARD |
| FMC | FLEXIBLE METAL CONDUIT | SWGR | SWITCHGEAR |
| GA | GAUGE | TB | TERMINAL BACKBOARD |
| GALV | GALVANIZED | TEL | TELEPHONE |
| GFI | GROUND FAULT INTERRUPTER | TEMP | TEMPERATURE |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSORS |
| GRD | GROUND | TYP | TYPICAL |
| HD | HEAVY DUTY | UL | UNDERWRITER'S LABORATORY |
| HDOS | HEAVY DUTY DISCONNECT SWITCH | ULSE | UNDERWRITER'S LABORATORY SERVICE ENTRANCE |
| HH | HANDHOLE | V | VOLT |
| HOA | HAND-OFF-AUTOMATIC | VOLT | VOLTAGE |
| HP | HORSEPOWER (33k FOOT-POUNDS OF WORK PER MINUTE) | VAC | VOLTS ALTERNATING CURRENT |
| HV | HIGH VOLTAGE | VDC | VOLTS DIRECT CURRENT |
| HVAC | HEATING, VENTILATION, AND AIR CONDITIONING | VENT | VENTILATION |
| HZ | HERTZ (CYCLES PER SECOND) | W | WIRE |
| ICCB | INSULATED CASE CIRCUIT BREAKER | W/ | WITH |
| ID | INSIDE DIAMETER | WP | WEATHERPROOF |
| IG | ISOLATED GROUND | WT | WATERTIGHT |
| IMC | INTERMEDIATE METAL CONDUIT | Z | ZONE |
| | | ' | FEET |
| | | " | INCHES |

TYPICAL LUMINAIRE, DEVICE AND CIRCUIT DESIGNATIONS

| | | |
|-------|---|---|
| a | Ⓐ | LUMINAIRE TYPE 'A', CIRCUIT NO. 1, CONTROLLED BY SWITCH "a" |
| FT2 | Ⓑ | FLUOR LUMINAIRE TYPE 'FT2', CIRCUIT NO. 2, CONTROLLED BY SWITCH "b" |
| 2 | | WALL OUTLET WITH RECEPTACLE NOTED, CONNECT TO CIRCUIT NO. 2 |
| L-1,3 | | HOMERUN TO PANEL 'L', CONNECT TO CIRCUIT NO.'S "1 & 3" |
| 1 | | EQUIPMENT CONNECTION - CONNECT TO CIRCUIT NO. 1 |

USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
ELECTRICAL SYMBOLS, LEGEND, & ABBREVIATIONS

Sheet Reference Number

E0.01

GENERAL ELECTRICAL NOTES AND SPECIFICATIONS

- THE GENERAL SCOPE OF WORK IS TO FURNISH AND INSTALL THE ELECTRICAL SYSTEMS, COMPONENTS AND MATERIALS COMPLETE IN ACCORDANCE WITH PLANS, SPECIFICATIONS AND MANUFACTURER'S PUBLISHED DATA. COORDINATE AND SUPPLY ALL SERVICE RELATED REQUIREMENTS AS FOLLOWS:
 - UTILITY SERVICE SYSTEM (LOW VOLTAGE)
415Y/240 VOLT, 50Hz, 3 PHASE, 4 WIRE
- THE UTILITY SUPPLY CONNECTION SHALL BE MADE IN ACCORDANCE WITH ALL UTILITY CRITERIA, CODES AND DETAILS. THE FOLLOWING SHALL BE COORDINATED AS A MINIMUM:
 - SPECIFIED NOMINAL VOLTAGE ESTABLISHED
 - SPECIFIED INSULATION VOLTAGE CLASS UTILIZED
 - PROPER PHASE & PHASE SEQUENCE ESTABLISHED
 - AVAILABLE FAULT CURRENT ESTABLISHED & PROPER EQUIP SCCR COORDINATION ESTABLISHED
 - THE CONTRACTOR IS REQUIRED TO COORDINATE ALL WORK, CONNECTIONS AND INSTALLATION CRITERIA WITH THE COMPOUND ELECTRICAL UPGRADE PROJECT.
- INSTALLATION AS A MINIMUM SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL CODE AND THE LISTED ELECTRICAL CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN AN "ELECTRICAL SAFE WORKING CONDITION".
- ALL CLEARANCES SHALL BE MAINTAINED PER CODES. ALL PARTS, DEVICES, EQUIPMENT, ETC. WHICH REQUIRE MAINTENANCE, ADJUSTMENT, OPERATION OR EXAMINATION DURING NORMAL NETWORK OPERATION SHALL BE ARRANGED SO AS TO BE ACCESSIBLE BY THE PROVISION OF ADEQUATE WORKING SPACES, WORKING FACILITIES AND CLEARANCES. UNLESS NOTED OTHERWISE ALL CLEARANCES ARE MEASURED FROM SURFACE TO SURFACE.
- PRIOR TO ANY ROUGH-IN THE CONTRACTOR SHALL SUBMIT SCALED DRAWINGS FOR APPROVAL FOR MAJOR ELECTRICAL EQUIPMENT INSTALLATIONS INDICATING ALL PROPER CLEARANCES PER THE CODE AND FOR MAINTENANCE. DRAWINGS SHALL INCLUDE MECHANICAL, PLUMBING AND STRUCTURAL DEVICES WITHIN THE SPACE OR AREA. DO NOT INSTALL ANY ELECTRICAL EQUIPMENT OR DEVICES UNTIL PROPER CLEARANCES ARE ESTABLISHED. PROVIDE FLOOR PLANS AND ELEVATION VIEWS FOR THE FOLLOWING:
 - PANELBOARDS / LOAD CENTERS
 - MOTOR STARTERS
 - DISCONNECT SWITCHES
 - AUXILIARY SYSTEM CABINETS
- COMPLETE CONTRACT DRAWINGS AND DETAILS SHALL BE EXAMINED FOR LOCATING ALL EQUIPMENT. COMPLETE SHOP DRAWING DATA (ALL TRADES) SHALL BE EXAMINED FOR EXACT DIMENSIONAL DATA. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR THE ACTUAL EQUIPMENT TO BE INSTALLED AND SHALL SECURE DIMENSIONAL DATA THAT WILL ASSIST IN DETERMINING ADEQUATE SPACE REQUIREMENTS FOR INSTALLING ALL ELECTRICAL EQUIPMENT, LUMINAIRES, DEVICES, ROUGH-IN REQUIREMENTS, ETC. ADJUST ACTUAL LOCATION OF ELECTRICAL PROVISIONS ACCORDINGLY. ADVISE ALL TRADES CONCERNING INSTALLATION OF PIPING, DUCTS, DEVICES, ETC., ABOVE ELECTRICAL EQUIPMENT AND TO MAINTAIN ADEQUATE CLEARANCES IN ACCORDANCE WITH THE REQUIREMENTS OF THIS CONTRACT. NAMEPLATE DATA OR MANUFACTURER'S WRITTEN DATA OF ACTUAL EQUIPMENT INSTALLED SHALL BE USED TO DETERMINE EXACT UNIT OR DEVICE PROTECTION, CONDUCTOR TERMINATION REQUIREMENTS, ETC. ALL DEVICES SHALL BE COORDINATED FOR THE PROPER VOLTAGE, OPERATION, CONTACT RATINGS, COLOR CODING, ETC.
- ALL OUTLETS AND DEVICES TO SUPPLY EQUIPMENT ITEMS SHALL BE COORDINATED WITH THE SPECIFIC EQUIPMENT REQUIREMENTS AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. REVIEW ALL SHOP DRAWINGS PRIOR TO ROUGH-IN.
 - INSTALL POWER AND CONTROL CIRCUITS FOR FOOD SERVICE EQUIPMENT IN ACCORDANCE WITH FOOD SERVICE EQUIPMENT SCHEDULE NOTES.
- ROUGH-IN OF OUTLET BOXES FOR DEVICES, EQUIPMENT CONNECTIONS, ETC., SHALL BE IN ACCORDANCE TO THEIR SPECIFIC PURPOSE AND COORDINATED WITH THE LATEST ARCHITECTURAL FLOOR PLANS AND ELEVATIONS AND APPROVED MILL WORK DRAWINGS.
 - FLUSH OUTLETS SHALL BE MTD FLUSH WITH THE FINAL FINISHED SURFACE. ALLOW FOR COMPLETE SURFACE TREATMENTS, EXTENSIONS, ETC.
 - CLG MTD AND WALL MTD EQUIPMENT OR DEVICES SHALL BE LOCATED TO MAINTAIN PROPER ACCESS FOR USE AND MAINTENANCE.
 - CLG MTD AND WALL MTD EQUIPMENT OR DEVICES SHALL BE LOCATED TO AVOID DOOR SWINGS WHERE REQUIRED.
 - AVOID CONFLICT WITH COUNTER TOP TRIM, SPLASH BOARDS, UPPER CABINETS, SINKS, ETC.
 - BOXES OVER 10.32 SQUARE MM IN SMOKE AND FIRE WALLS SHALL BE FIVE SIDED WITH SAME RATED CONSTRUCTION AS WALL SYSTEM.
- ARRANGE FOR CHASES, SLOTS AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION. TO ALLOW FOR ELECTRICAL INSTALLATIONS. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
- CONDUIT SYSTEMS IN GENERAL SHALL BE CONCEALED UNLESS INDICATED OTHERWISE.
 - ALL UNDERGROUND CONDUIT RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE AND GASES
 - FLEX CONDUIT INSTALLED ON EXTERIOR, IN WET LOCATIONS OR ANY MECHANICAL ROOM SHALL BE LIQUID TIGHT WITH SUITABLE FITTINGS.
 - INSTALL CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR CONDUITS PASSING THROUGH EXPANSION JOINTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.
 - ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULLWIRE
 - ALL GENERAL BRANCH CIRCUIT SYSTEMS SHALL BE RUN OVERHEAD UNLESS NOTED OTHERWISE.
 - MINIMUM SIZE CONDUIT SHALL BE 16mm UNLESS NOTED OTHERWISE
- CONDUCTOR SYSTEMS IN GENERAL SHALL BE INSTALLED WITHIN AN APPROVED CABLE OR RACEWAY SYSTEM.
 - CONDUCTORS SHALL BE COPPER
 - BRANCH CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN 4mm2 UNLESS NOTED
 - CONDUCTORS 10mm2 & LARGER SHALL BE STRANDED
 - CONDUCTORS 6mm2 & SMALLER SHALL BE SOLID
 - INSTALL AN INSULATED (IDENTIFIED) EQUIPMENT GROUNDING CONDUCTOR WITH EACH BRANCH CIRCUIT AND FEEDER
 - SEE BRANCH CIRCUIT WIRING DESIGNATIONS
- THE PROPER SIZED JUNCTION AND/OR PULL BOXES SHALL BE INSTALLED AS REQUIRED FOR RACEWAY TRANSITIONS AND PROPER WIRE PULLING REQUIREMENTS. THE FOLLOWING APPLIES FOR ALL BRANCH CIRCUIT AND FEEDER BOXES:
 - LABEL EACH BOX ON COVERPLATE; THE PANEL AND CIRCUIT NUMBERS THAT ARE ROUTED THROUGH THE BOX.

- EARTHING SYSTEMS SHALL BE SOLID PER CODE. ALL NON-CURRENT CARRYING METALLIC PORTIONS OF THE ELECTRICAL SYSTEM, DEVICES, COMPONENTS, ENCLOSURES, OUTLET & JUNCTION BOXES, SUPPORTS, ETC. SHALL BE BONDED TO THE FACILITY GROUNDING SYSTEM.
- MOUNTING HEIGHTS OF WALL OUTLETS SHALL BE AS INDICATED IN THE MOUNTING HEIGHT SCHEDULE.
- ALL RECEPTACLE OUTLETS SHALL BE PROVIDED TO MEET THE USER REQUIREMENTS AT EACH LOCATION SPECIFIED. GENERAL RECEPTACLE: DUPLEX 13A+N+E, 230V, 1PH, 50HZ
- FLOOR BOXES SHALL BE THE COMBINATION POWER/DATA/VOICE WITH THE NUMBER OF DEVICES NOTED FOR EACH SYSTEM. BOXES SHALL BE ADJUSTABLE, CONCRETE TIGHT AND NONMETALLIC. PROVIDE THE NUMBER OF POWER AND COMM OUTLETS NOTED.
- CIRCUIT BREAKERS FOR POWER AND CONVENIENCE OUTLETS SHALL BE PROTECTED WITH PHASE SHORT CIRCUIT PROTECTIVE DEVICES AND BY CURRENT-OPERATED EARTH LEAKAGE PROTECTIVE DEVICES IN ACCORDANCE WITH IEC 60947-2, RESIDUAL CURRENT CIRCUIT BREAKERS (RCB).
 - 30mA LESS THAN 125 AMP
 - 300mA EQUAL TO OR GREATER THAN 125 AMP.

CONDUCTOR SCHEDULE & PROPERTIES DESIGNATIONS

| AREA | | NOTES |
|-----------------------------|---------------|--|
| mm ² (NOTE 4) | CIRCULAR MILS | <div>1. UNLESS NOTED OTHERWISE ALL LOW VOLTAGE CONDUCTORS SHALL BE RATED AT 1,000 VOLTS AND THE INSTALLATION BASED UPON AN AMBIENT TEMPERATURE OF 30°C AS FOLLOWS:<ul style="list-style-type: none">METAL - COPPERINSULATION - SEE SPECIFICATIONSTEMPERATURE RATING - 75°CLOCATION - WET OR DRY</div> <div>2. CONDUCTORS SHALL BE IDENTIFIED BY SURFACE MARKINGS FROM THE MANUFACTURER:<ul style="list-style-type: none">MANUFACTURER'S IDENTIFICATIONCONDUCTOR SIZE AND METALVOLTAGE RATINGUL LISTINGTYPE DESIGNATION & OPTIONAL RATINGS</div> <div>3. CONDUCTORS SHALL BE LABELED BY THE CONTRACTOR, FOR ANY CIRCUIT 60 AMPERES AND HIGHER, IN EACH PULLBOX, J-BOX OR WIREWAY AS FOLLOWS:<ul style="list-style-type: none">PANEL SOURCE & CIRCUIT BREAKER SIZEDESTINATION (LOAD SERVED)</div> <div>4. THE mm² VALUE INDICATED ARE ACTUAL TRADE SIZES THAT CAN BE PURCHASED AND CONSIDERED EQUAL. THEY ARE NOT THE ACTUAL MEASURED AREA.</div> |
| 1.0 | 1,620 | |
| 1.5 | 2,580 | |
| 2.5 | 4,110 | |
| 4 | 6,530 | |
| 6 | 10,380 | |
| 10 | 16,510 | |
| 16 | 26,240 | |
| 25 | 41,740 | |
| 35 | 66,360 | |
| 50 | 105,600 | |
| 70 | 133,100 | |
| 95 | 167,800 | |
| 120 | 211,600 | |
| 150 | 300,000 | |
| 185 | 350,000 | |
| 240 | 500,000 | |
| 300 | 600,000 | |
| 400 | 750,000 | |

GENERAL BRANCH CIRCUIT DESIGNATIONS - SI

| NOTES: | |
|--|-----------------------------------|
| 1. LARGER SIZE CONDUCTORS SHALL BE USED WHEN INDICATED AND AS REQUIRED FOR DERATING. | |
| 2. ALL CIRCUITS SHALL CONTAIN A GREEN EQUIPMENT GRD CONDUCTOR. | |
| 3. EQUIPMENT GROUND CONDUCTOR SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED: <ul style="list-style-type: none">4mm2 CIRCUIT - 4mm2 GRD6mm2 CIRCUIT - 6mm2 GRD10mm2 CIRCUIT - 6mm2 GRD | |
| 4. UNLESS OTHERWISE INDICATED, CONDUIT SIZE IS BASED UPON MAX NO. ALLOWED BY NEC UTILIZING A MAX ALLOWABLE PERCENTAGE FILL OF 40%. SEE CHAPTER 9 OF NEC. | |
| 5. METRIC DESIGNATORS ARE BASED UPON INDUSTRY STANDARDS. SEE CONDUIT AND TUBING SCHEDULE. | |
| | 2-4mm2 & 1-4mm2 GRD - 16mmC |
| | 3-4mm2 & 1-4mm2 GRD - 16mmC |
| | 4-4mm2 & 1-4mm2 GRD - 21mmC |
| | 5-4mm2 & 1-4mm2 GRD - 21mmC, ETC. |
| | 2-6mm2 & 1-6mm2 GRD - 16mmC |
| | 3-6mm2 & 1-6mm2 GRD - 21mmC, ETC. |
| | 4-6mm2 & 1-6mm2 GRD - 21mmC |
| | 5-6mm2 & 1-6mm2 GRD - 27mmC, ETC. |
| | 6-6mm2 & 1-6mm2 GRD - 27mmC, ETC. |

ISO GRD BRANCH CIRCUIT DESIGNATIONS - SI

| | |
|--|--|
| | 1-4mm2 (PH), 1-6mm2 (N), 1-4mm2 GRD & 1-4mm2 (ISO GRD) - 16mmC |
| | 2-4mm2 (PH), 1-6mm2 (N), 1-4mm2 GRD & 1-4mm2 (ISO GRD) - 21mmC |
| | 3-4mm2 (PH), 1-6mm2 (N), 1-4mm2 GRD & 1-4mm2 (ISO GRD) - 27mmC |

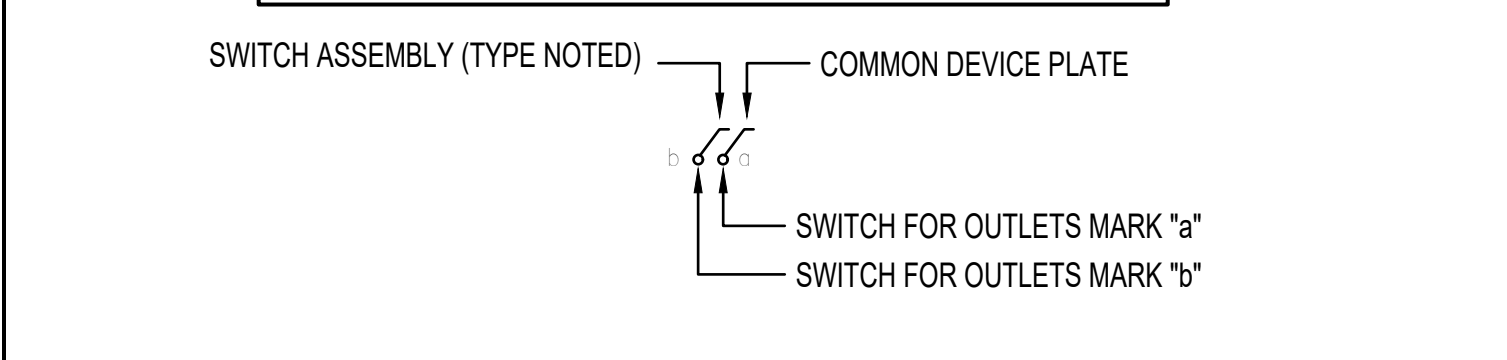
MOUNTING HEIGHT SCHEDULE

| DESCRIPTION | SI | REMARKS |
|--|---------|-----------------------------------|
| RECEPTACLE-GENERAL | 45.7cm | |
| RECEPTACLE-TOILET AREAS | 1.22m | |
| RECEPTACLE-ABOVE COUNTERS | 10.16cm | ABOVE SPLASH BOARD OR AS DIRECTED |
| RECEPTACLE-EXTERIOR | 45.7cm | MINIMUM ABOVE FINISHED GRADE |
| RECEPTACLE-APPLIANCES OR EQUIP | | AS PER MANUFACTURER REQUIREMENTS |
| RECEPTACLE-SPECIAL PURPOSE | | AS REQUIRED OR AS DIRECTED |
| WALL SWITCH-GENERAL | 1.22m | |
| WALL SWITCH-DIMMER TYPE | 1.22m | |
| WALL SWITCH-MANUAL MOTOR STARTER | 1.22m | |
| COMM/DATA-GENERAL | 45.7cm | |
| PUSHBUTTON STATIONS | 1.22m | |
| THERMOSTAT OUTLET | 1.54m | |
| | | |
| | | |
| NOTE: 1. ALL DIMENSIONS ARE FROM FLOOR TO CENTERLINE OF DEVICE. | | |

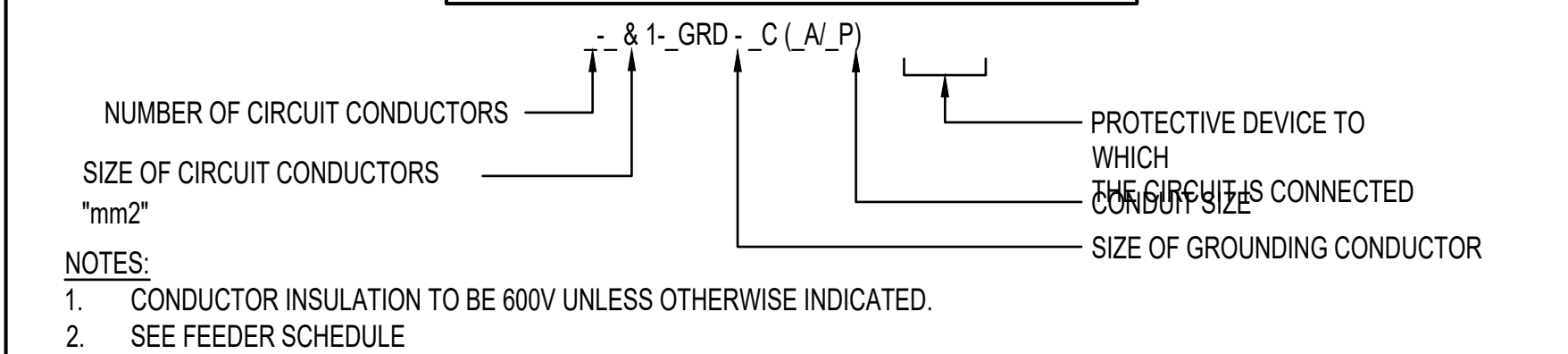
CONDUIT & TUBING SCHEDULE DESIGNATIONS

| CONDUIT SIZE | NOTES |
|------------------------|---|
| METRIC DESIGNATOR (mm) | <div>1. THE METRIC DESIGNATORS AND TRADE SIZES ARE FOR IDENTIFICATION PURPOSES ONLY AND NOT EXACT DIMENSIONS.</div> <div>2. MINIMUM SIZE CONDUIT OR TUBING SYSTEM TO BE USED SHALL BE 16mm. THE 12mm SHALL BE USED ONLY FOR SPECIAL EQUIPMENT CONNECTIONS OR LUMINAIRE WHIPS AS AN ASSEMBLY COMPONENT OR INTEGRAL PARTS OF EQUIPMENT.</div> <div>3. CONDUIT FILL SHALL BE BASED ON 40% FILL OF CROSS SECTION OF CONDUIT FOR NOMINAL CONDITIONS:<ul style="list-style-type: none">3 OR MORE CONDUCTORSLENGTH OF PULLS MINIMIZEDNUMBER OF BENDS LIMITEDADEQUATE HEAT DISSIPATIONOTHERWISE CONDUIT SIZE SHALL BE INCREASED.</div> |
| 12 | |
| 16 | |
| 21 | |
| 27 | |
| 35 | |
| 41 | |
| 53 | |
| 63 | |
| 78 | |
| 91 | |
| 103 | |
| 129 | |
| 155 | |

TYPICAL GANGABLE SWITCH DESIGNATIONS



TYPICAL FEEDER DESIGNATIONS



| | | | | | |
|--|--|--|--|--|--------------|
| | | | | | Appr. |
| | | | | | Date |
| | | | | | Description |
| | | | | | Appr. Symbol |
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| | | | | | Description |
| | | | | | Symbol |

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|-------------------------------------|-------------------------|----------------------------|
| Contract Date: NOVEMBER 30, 2020 | Drawn by: EWH | Contract No.: 1728822F0003 |
| File Name: 1728822F0003_0001.dwg | Dwg. Code: | Contract No.: 1728822F0003 |
| Reviewed by: KLH | Submitted by: Perez APC | Contract No.: 1728822F0003 |
| Issued Date: 06/01/2021 | Plot Date: | Contract No.: 1728822F0003 |
| Deliverable Date: 09/16/2022 | Plot Scale: | Contract No.: 1728822F0003 |

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



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SHEET NOTES

1. THERE IS AN ONGOING PROJECT TO UPGRADE THE COMPOUND ELECTRICAL POWER PLANT AND DISTRIBUTION SYSTEM. THIS SYSTEM IS REPRESENTED IN LIGHT BACKGROUND AS RCSWBD-1 THRU RCSWBD-7.
2. COORDINATE AND PROVIDE THE ELECTRICAL SERVICES FROM THE TEMPORARY POWER PLANT SWITCHBOARD "SWBD-TGEN2" FOR FACILITIES IN THIS CONTRACT.
3. SEE SHEET ED1.02 FOR DEMOLITION PHASING COORDINATION.

[illegible]

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|---------------------|---------------|--|
| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | Fig. Name: BIM 3D/4D/5D/6D/7D/8D/9D/10D/11D/12D/13D/14D/15D/16D/17D/18D/19D/20D/21D/22D/23D/24D/25D/26D/27D/28D/29D/30D/31D/32D/33D/34D/35D/36D/37D/38D/39D/40D/41D/42D/43D/44D/45D/46D/47D/48D/49D/50D/51D/52D/53D/54D/55D/56D/57D/58D/59D/60D/61D/62D/63D/64D/65D/66D/67D/68D/69D/70D/71D/72D/73D/74D/75D/76D/77D/78D/79D/80D/81D/82D/83D/84D/85D/86D/87D/88D/89D/90D/91D/92D/93D/94D/95D/96D/97D/98D/99D/100D/101D/102D/103D/104D/105D/106D/107D/108D/109D/110D/111D/112D/113D/114D/115D/116D/117D/118D/119D/120D/121D/122D/123D/124D/125D/126D/127D/128D/129D/130D/131D/132D/133D/134D/135D/136D/137D/138D/139D/140D/141D/142D/143D/144D/145D/146D/147D/148D/149D/150D/151D/152D/153D/154D/155D/156D/157D/158D/159D/160D/161D/162D/163D/164D/165D/166D/167D/168D/169D/170D/171D/172D/173D/174D/175D/176D/177D/178D/179D/180D/181D/182D/183D/184D/185D/186D/187D/188D/189D/190D/191D/192D/193D/194D/195D/196D/197D/198D/199D/200D/201D/202D/203D/204D/205D/206D/207D/208D/209D/210D/211D/212D/213D/214D/215D/216D/217D/218D/219D/220D/221D/222D/223D/224D/225D/226D/227D/228D/229D/230D/231D/232D/233D/234D/235D/236D/237D/238D/239D/240D/241D/242D/243D/244D/245D/246D/247D/248D/249D/250D/251D/252D/253D/254D/255D/256D/257D/258D/259D/260D/261D/262D/263D/264D/265D/266D/267D/268D/269D/270D/271D/272D/273D/274D/275D/276D/277D/278D/279D/280D/281D/282D/283D/284D/285D/286D/287D/288D/289D/290D/291D/292D/293D/294D/295D/296D/297D/298D/299D/300D/301D/302D/303D/304D/305D/306D/307D/308D/309D/310D/311D/312D/313D/314D/315D/316D/317D/318D/319D/320D/321D/322D/323D/324D/325D/326D/327D/328D/329D/330D/331D/332D/333D/334D/335D/336D/337D/338D/339D/340D/341D/342D/343D/344D/345D/346D/347D/348D/349D/350D/351D/352D/353D/354D/355D/356D/357D/358D/359D/360D/361D/362D/363D/364D/365D/366D/367D/368D/369D/370D/371D/372D/373D/374D/375D/376D/377D/378D/379D/380D/381D/382D/383D/384D/385D/386D/387D/388D/389D/390D/391D/392D/393D/394D/395D/396D/397D/398D/399D/400D/401D/402D/403D/404D/405D/406D/407D/408D/409D/410D/411D/412D/413D/414D/415D/416D/417D/418D/419D/420D/421D/422D/423D/424D/425D/426D/427D/428D/429D/430D/431D/432D/433D/434D/435D/436D/437D/438D/439D/440D/441D/442D/443D/444D/445D/446D/447D/448D/449D/450D/451D/452D/453D/454D/455D/456D/457D/458D/459D/460D/461D/462D/463D/464D/465D/466D/467D/468D/469D/470D/471D/472D/473D/474D/475D/476D/477D/478D/479D/480D/481D/482D/483D/484D/485D/486D/487D/488D/489D/490D/491D/492D/493D/494D/495D/496D/497D/498D/499D/500D/501D/502D/503D/504D/505D/506D/507D/508D/509D/510D/511D/512D/513D/514D/515D/516D/517D/518D/519D/520D/521D/522D/523D/524D/525D/526D/527D/528D/529D/530D/531D/532D/533D/534D/535D/536D/537D/538D/539D/540D/541D/542D/543D/544D/545D/546D/547D/548D/549D/550D/551D/552D/553D/554D/555D/556D/557D/558D/559D/560D/561D/562D/563D/564D/565D/566D/567D/568D/569D/570D/571D/572D/573D/574D/575D/576D/577D/578D/579D/580D/581D/582D/583D/584D/585D/586D/587D/588D/589D/590D/591D/592D/593D/594D/595D/596D/597D/598D/599D/600D/601D/602D/603D/604D/605D/606D/607D/608D/609D/610D/611D/612D/613D/614D/615D/616D/617D/618D/619D/620D/621D/622D/623D/624D/625D/626D/627D/628D/629D/630D/631D/632D/633D/634D/635D/636D/637D/638D/639D/640D/641D/642D/643D/644D/645D/646D/647D/648D/649D/650D/651D/652D/653D/654D/655D/656D/657D/658D/659D/660D/661D/662D/663D/664D/665D/666D/667D/668D/669D/670D/671D/672D/673D/674D/675D/676D/677D/678D/679D/680D/681D/682D/683D/684D/685D/686D/687D/688D/689D/690D/691D/692D/693D/694D/695D/696D/697D/698D/699D/700D/701D/702D/703D/704D/705D/706D/707D/708D/709D/710D/711D/712D/713D/714D/715D/716D/717D/718D/719D/720D/721D/722D/723D/724D/725D/726D/727D/728D/729D/730D/731D/732D/733D/734D/735D/736D/737D/738D/739D/740D/741D/742D/743D/744D/745D/746D/747D/748D/749D/750D/751D/752D/753D/754D/755D/756D/757D/758D/759D/760D/761D/762D/763D/764D/765D/766D/767D/768D/769D/770D/771D/772D/773D/774D/775D/776D/777D/778D/779D/780D/781D/782D/783D/784D/785D/786D/787D/788D/789D/790D/791D/792D/793D/794D/795D/796D/797D/798D/799D/800D/801D/802D/803D/804D/805D/806D/807D/808D/809D/810D/811D/812D/813D/814D/815D/816D/817D/818D/819D/820D/821D/822D/82 |

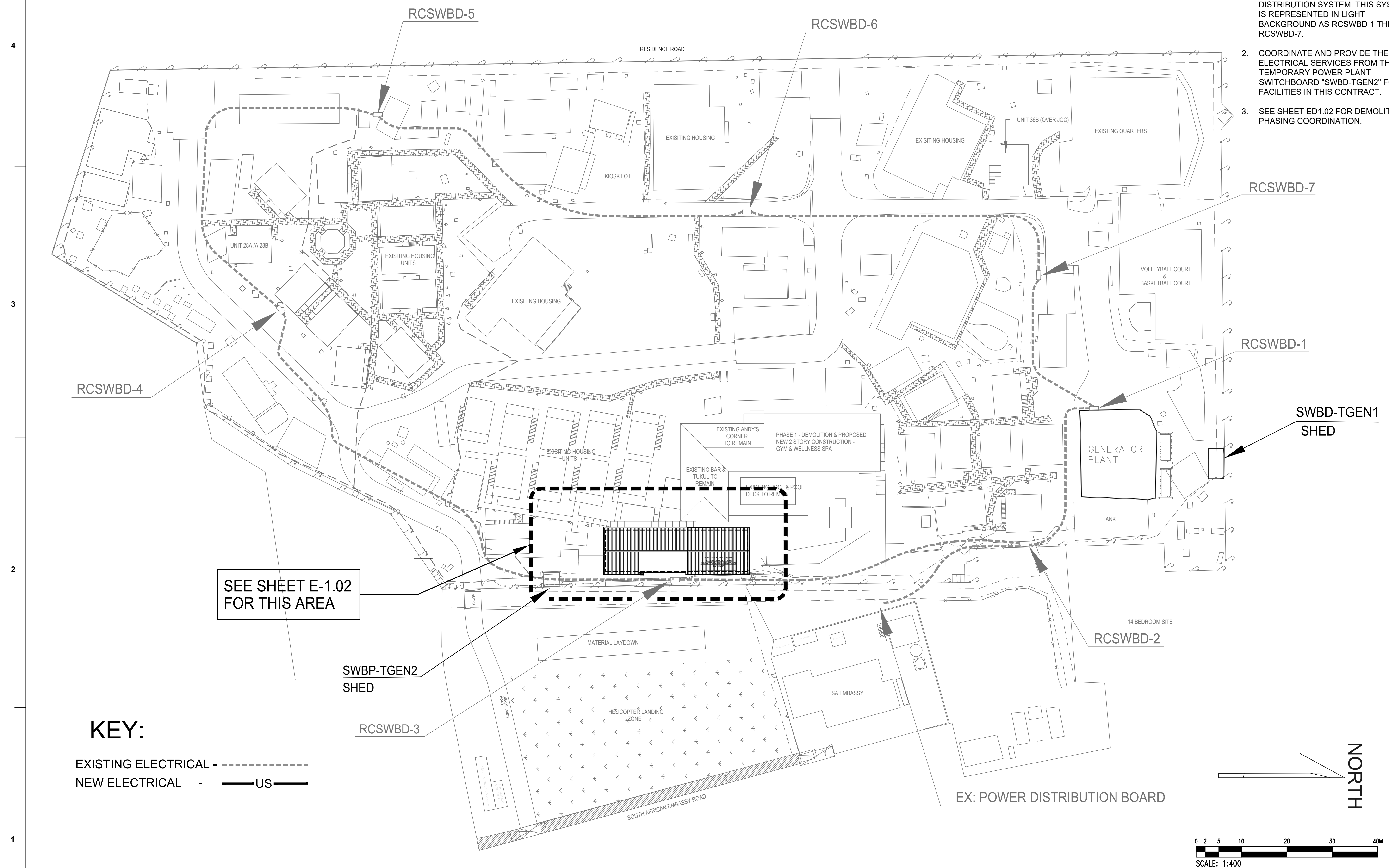


**USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
SITE OVERVIEW PLAN**

Sheet
Reference
Number

E1.01

CLIN 0002



SITE OVERVIEW PLAN

SCALE: 1:400

A

B

C

D

E

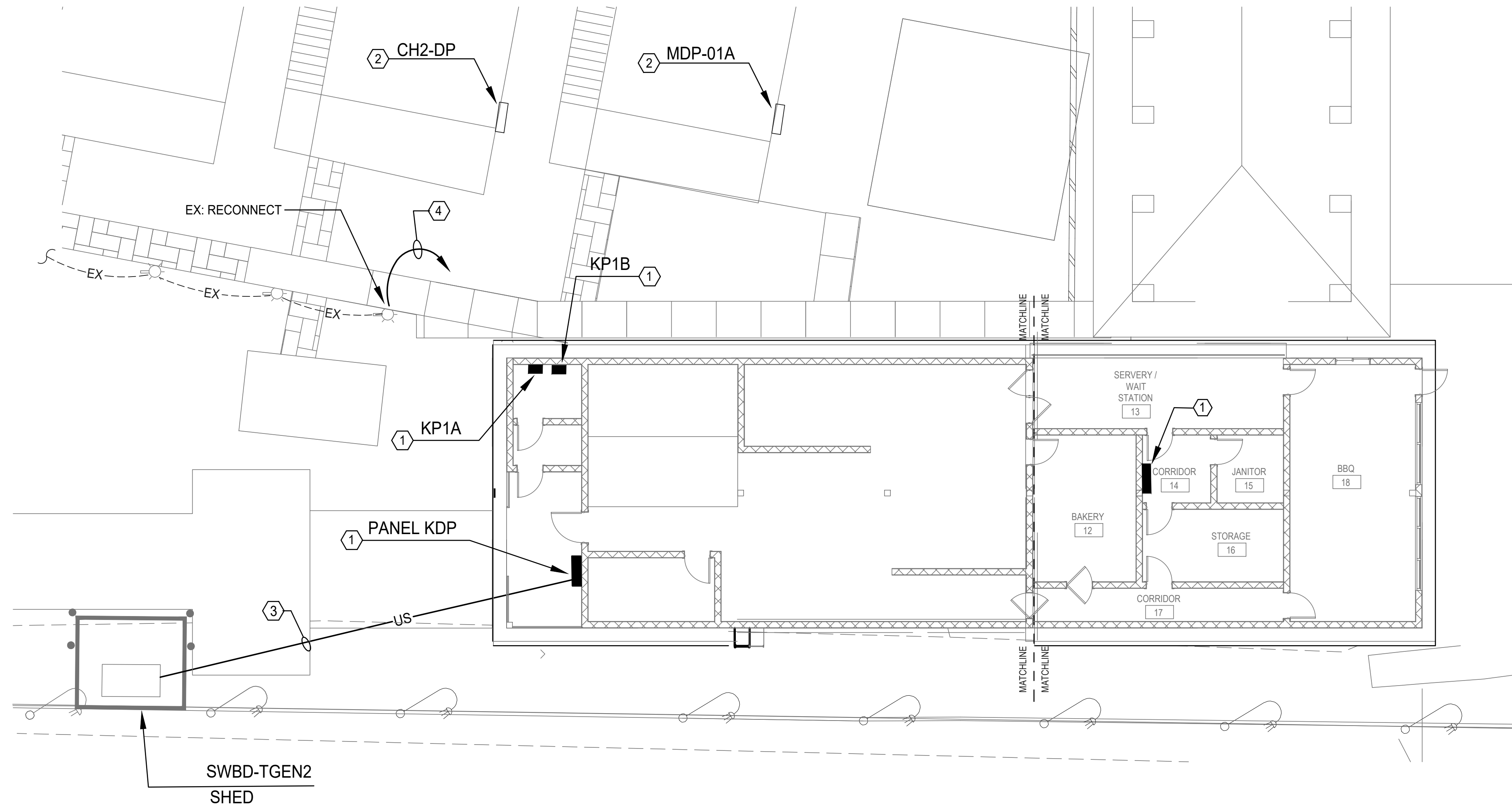
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

KEYED NOTES

- ① NEW PANEL LOCATIONS
- ② NEW RELOCATED PANEL LOCATIONS
COORDINATE WITH TEMPORARY POWER
PLANT DOCUMENTS FOR ROUTING AND
TERMINATION.
- ③ CONNECT TO OUTDOOR POWER
DISTRIBUTION SWITCHBOARD
SWBR-TGEN2. COORDINATE WITH
TEMPORARY POWER PLANT DOCUMENTS
FOR ROUTING AND TERMINATION.
- ④ RECONNECT TO EXISTING POWER
SOURCE.

SHEET NOTES

1. SEE SHEET NOTES, SHEET E1.01.



KEY:

NEW ELECTRICAL - ——— US ———

HANDHOLE - ☒

0 2 5 10M
SCALE: 1:100

NORTH



| Symbol | Description | Date | Appr. | Symbol | Description | Date | Appr. |
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| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: 1616-00-00000-Engineering-Support |
| Submitted by: Perez APC | Plot Scale: VARIES | Plot Date: |
| Issued Date: 08/01/2021 | Contract No.: | |
| Deliverable Date: 08/16/2022 | 447024-1-10-0001 / 7268622P0003 | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
ENLARGMENT UNDERGROUND
DISTRIBUTION

Sheet
Reference
Number

E1.02

CLIN 0002

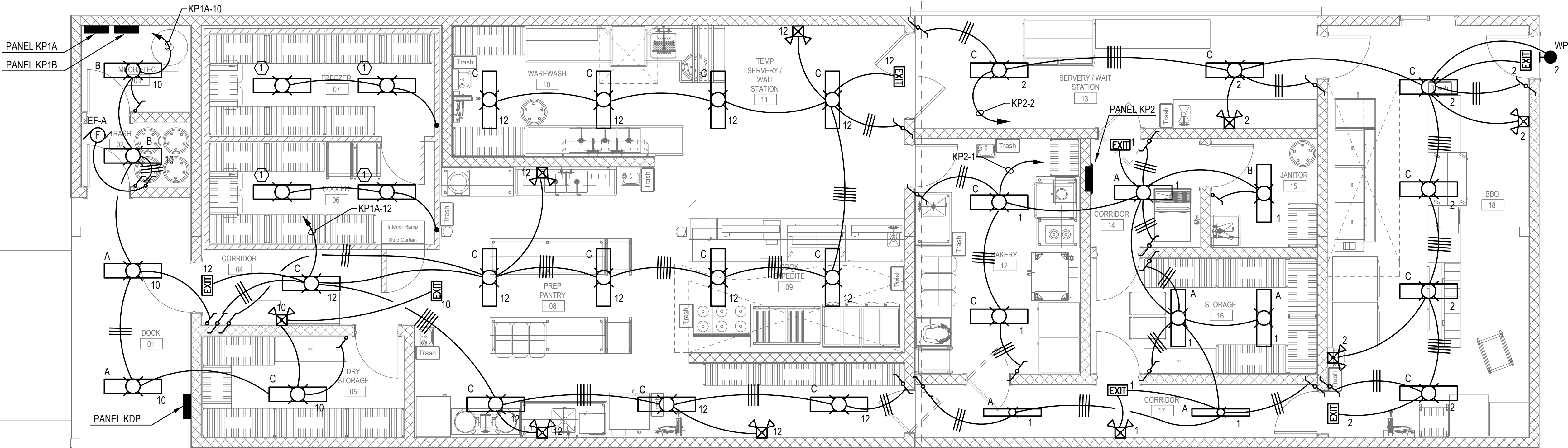
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

SHEET NOTES

- SEE SHEET E6.01 FOR LUMINAIRE SCHEDULE.
- COORDINATE WITH REFLECTED CEILING PLAN.
- SEE SHEET E9.01 FOR COORDINATION BETWEEN PHASE 1 AND PHASE 2 INSTALLATION.

KEYED NOTES

- ① WALK-IN COOLER / FREEZER LUMINAIRES SHALL BE PROVIDED BY KITCHEN EQUIPMENT SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR.
* SEE SHEET E2.02 FOR CIRCUITING



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| Symbol | Description | Appr. / Symbol | Date | Appr. |
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| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: KITCHEN LIGHTING FLOOR PLAN |
| Submitted by: Perez APC | Plot Scale: Varies | Plot Date: |
| Issued Date: 08/01/2021 | Contract No.: | Contract Date: 08/16/2022 |
| Deliverable Date: | | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
KITCHEN LIGHTING FLOOR PLAN

Sheet
Reference
Number

E2.01

CLIN 0002

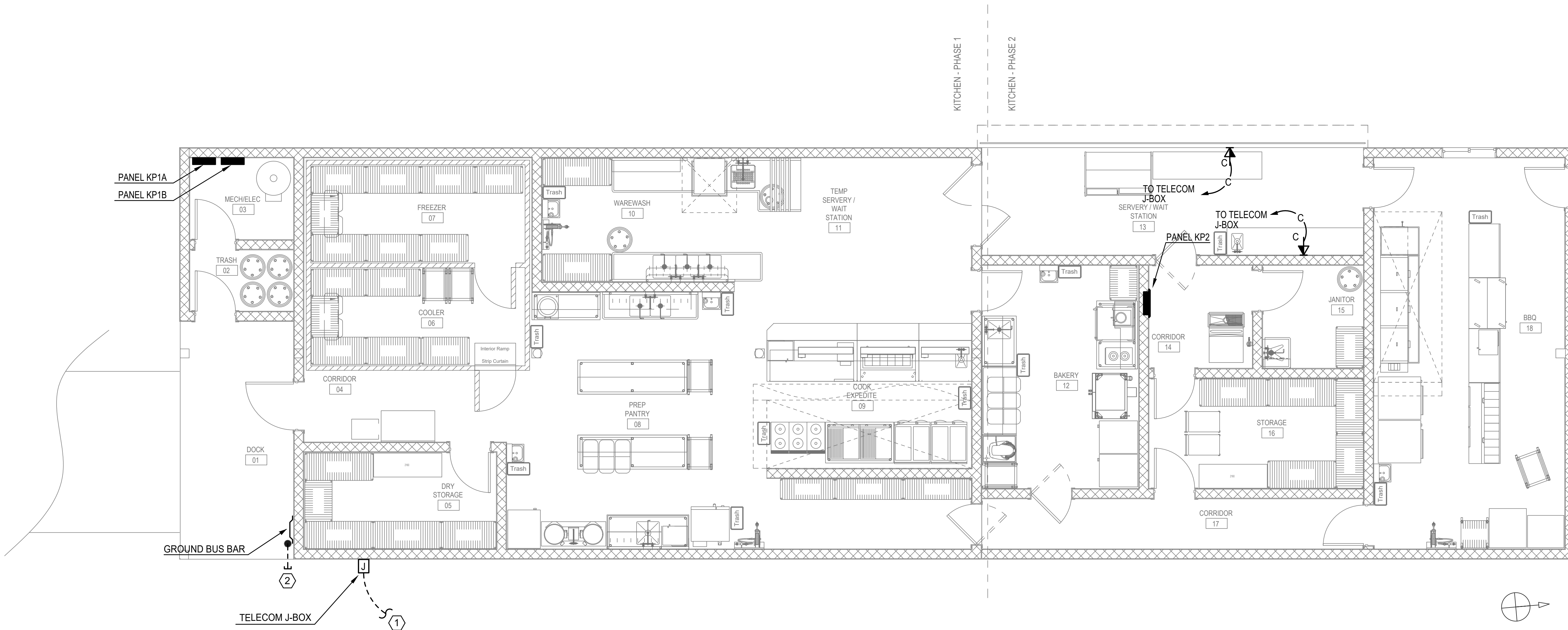
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

SHEET NOTES

1. PROVIDE PHONE OUTLET, BOX, EMPTY CONDUIT W/PULL STRING AS INDICATED TO APPROPRIATE JUNCTION BOX ON EXTERIOR OF BUILDING.

KEYED NOTES

- 1 UTILITY SERVICES BY GOVERNMENT CONTRACTOR.
- 2 PROVIDE A 35mmC THROUGH SLAB FOR BONDING CONDUCTOR TO COUNTERPOISE.
* SEE SHEET E8.01



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[illegible]

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|-------------------------|---------------|---|
| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: BAA-2010-04-01 Engineering BAA-2010-04-01 Mechanical 50 SUDAN KITCHEN.vrt |
| Submitted by: Perez APC | | Plot Date: - |
| | | Plot Scale: VARIES |
| Issued Date: | 05/01/2021 | Contract No: |

Perez.

**USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
KITCHEN AUXILIARY FLOOR PLAN**

Sheet
Reference
Number

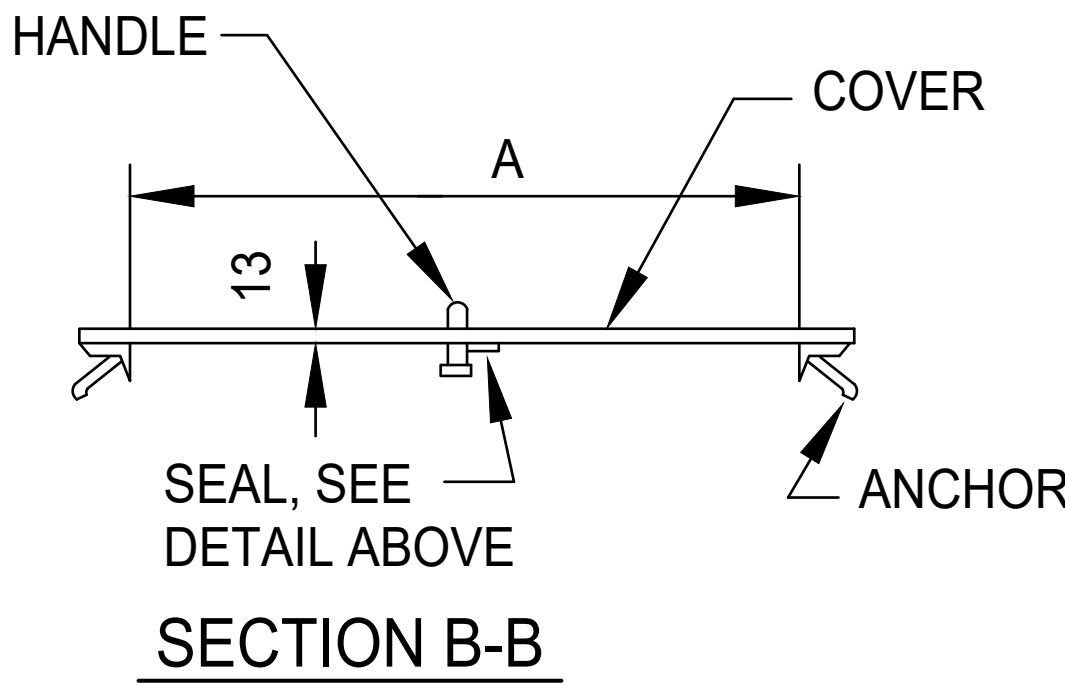
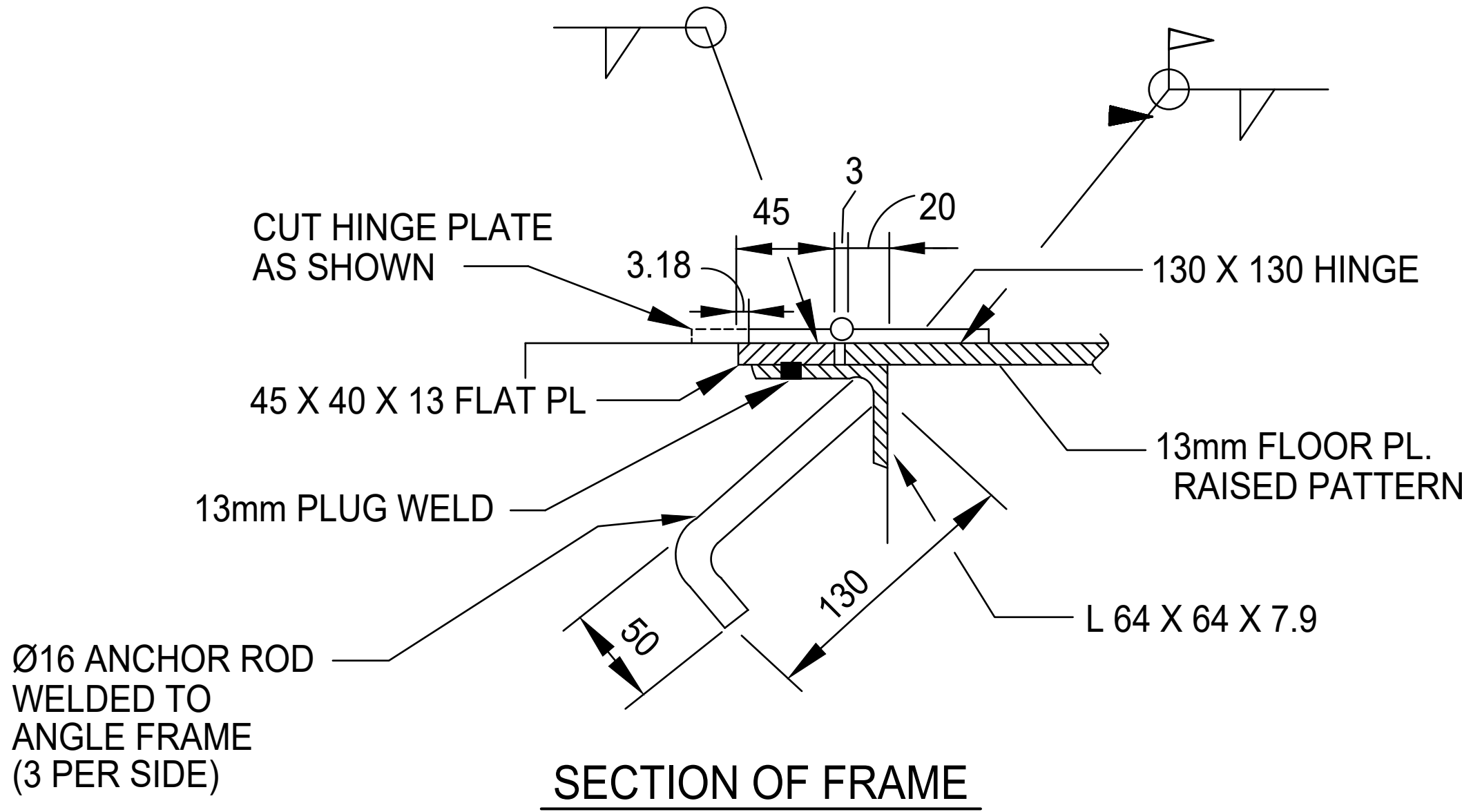
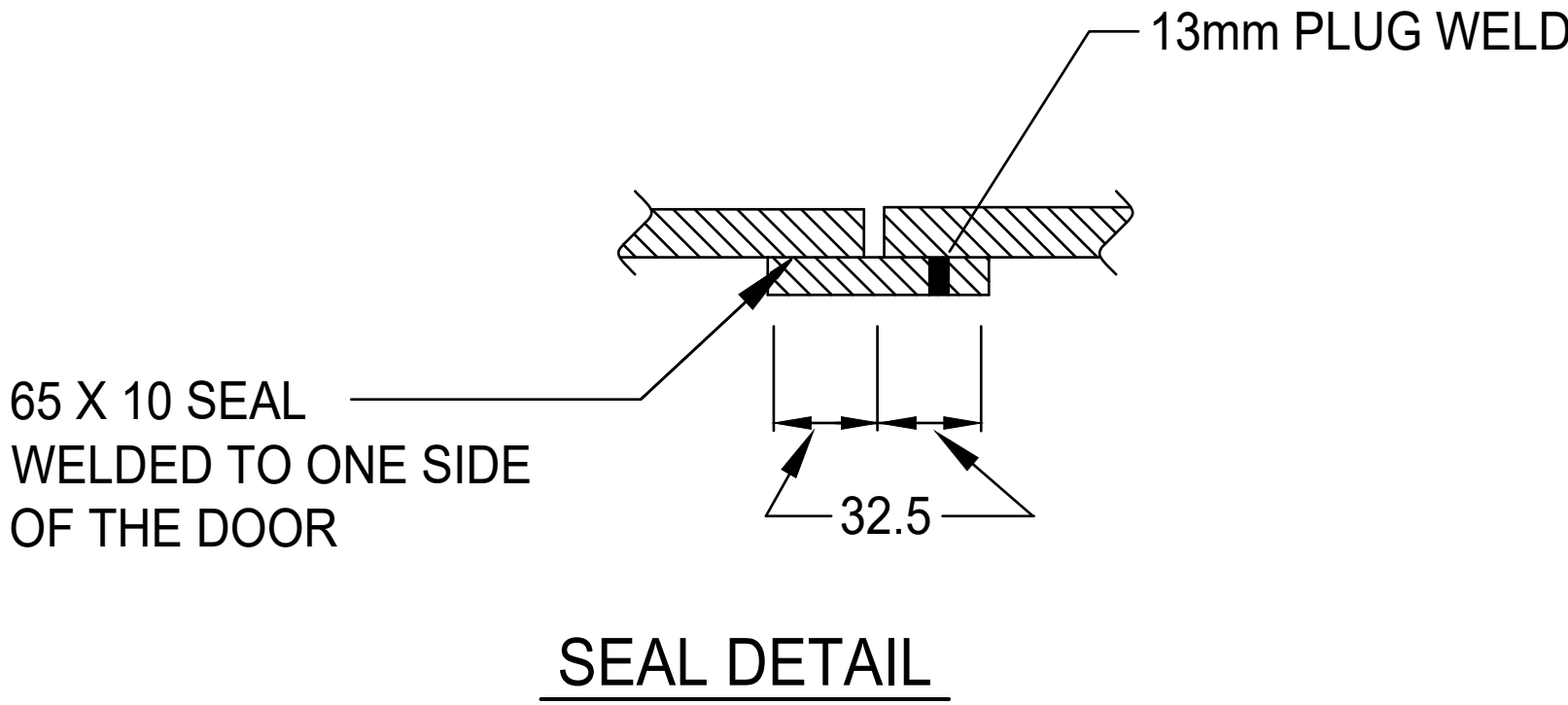
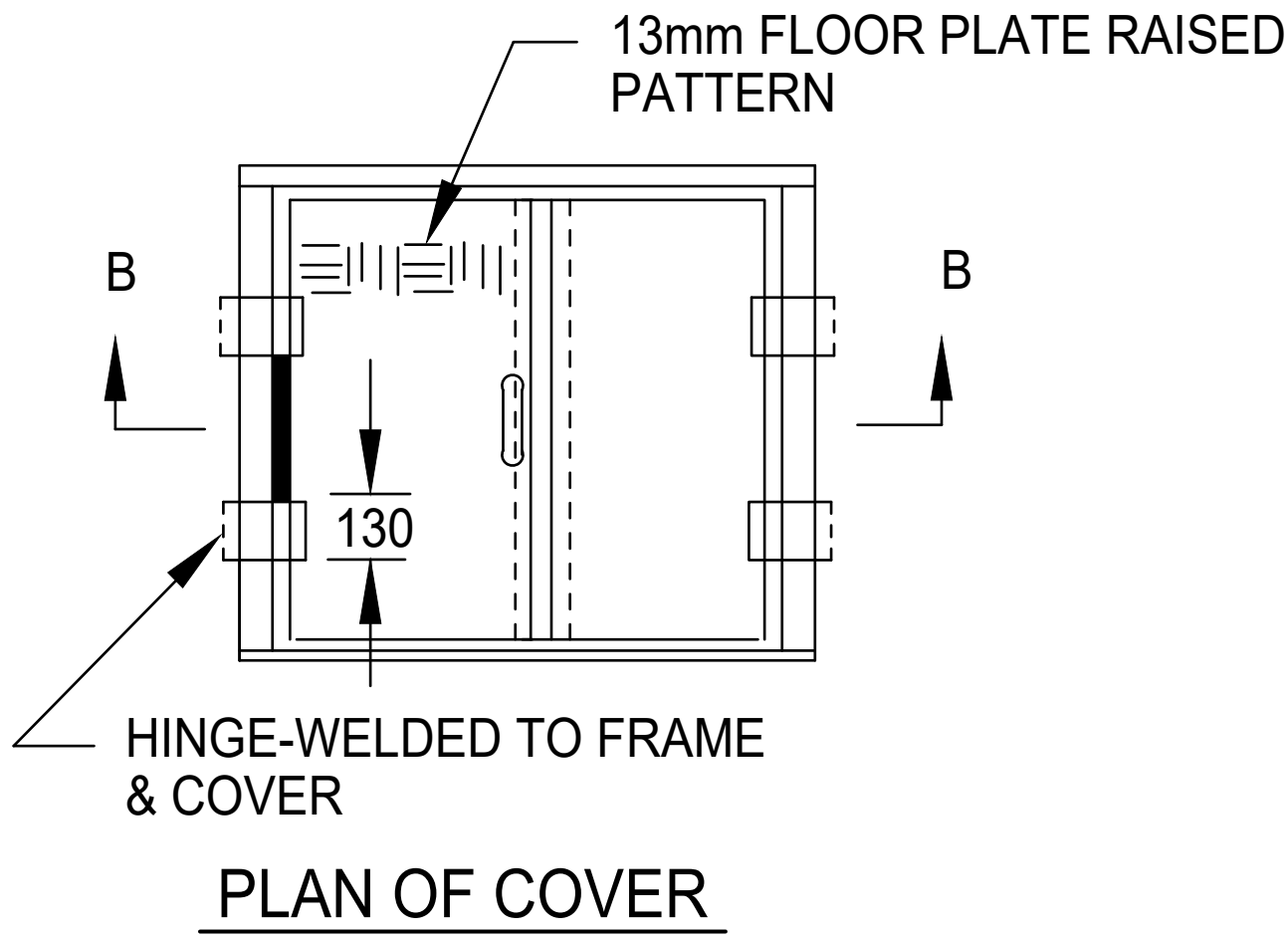
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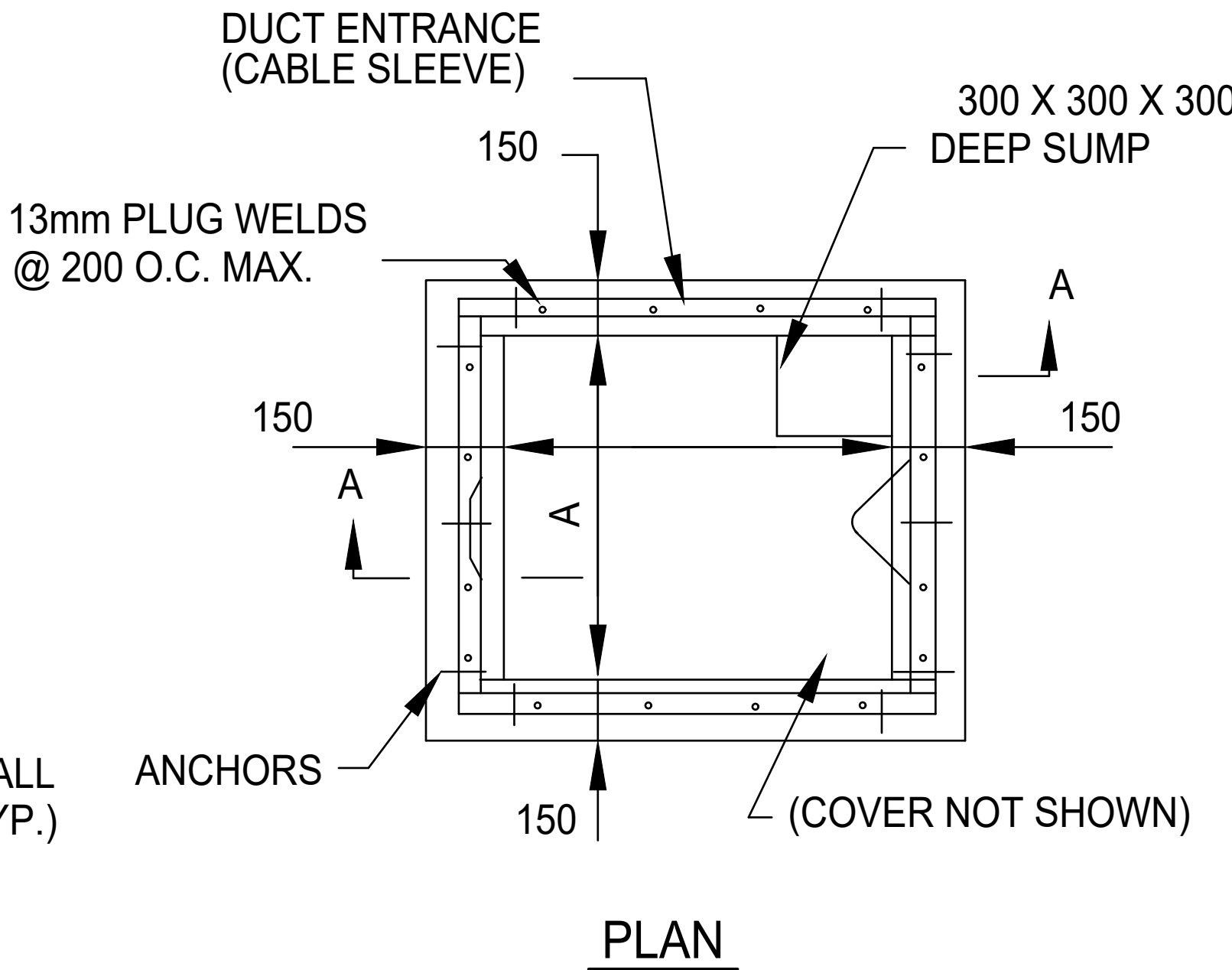
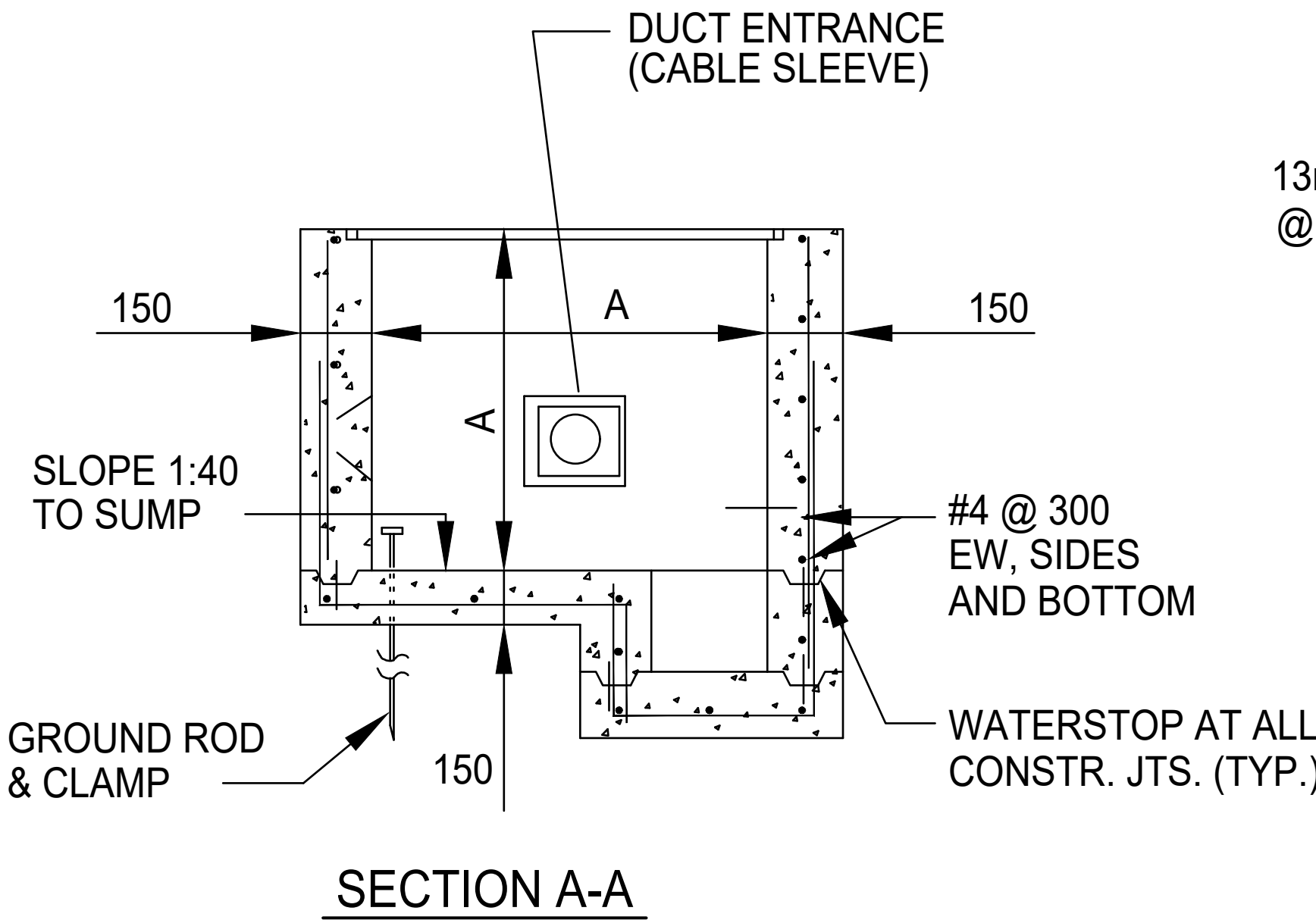
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| 1 | AUXILIARY FLOOR PLAN SCALE: 1:50 |
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SCALE: 1 : 50

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



| HANDHOLE | DIMENSIONS |
|----------|------------|
| TYPE | A |
| 1 | 1000 |



NOTES:

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 21 MPa.
2. USE PCV DUCT SLEEVE FOR CABLE ENTRY POINTS.



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| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: Handhole Installation - Support Program |
| Submitted by: Perez APC | Plot Scale: VARIES | Plot Date: VARIES |
| Issued Date: 08/01/2021 | Contract No.: | Contract No.: |
| Delivery Date: 08/16/2022 | Contract No.: | Contract No.: |



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| USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM | ISSUE FOR CONSTRUCTION REV. 2 |
| HANDHOLE INSTALLATION | |

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| Sheet Reference Number |
| E4.03 |

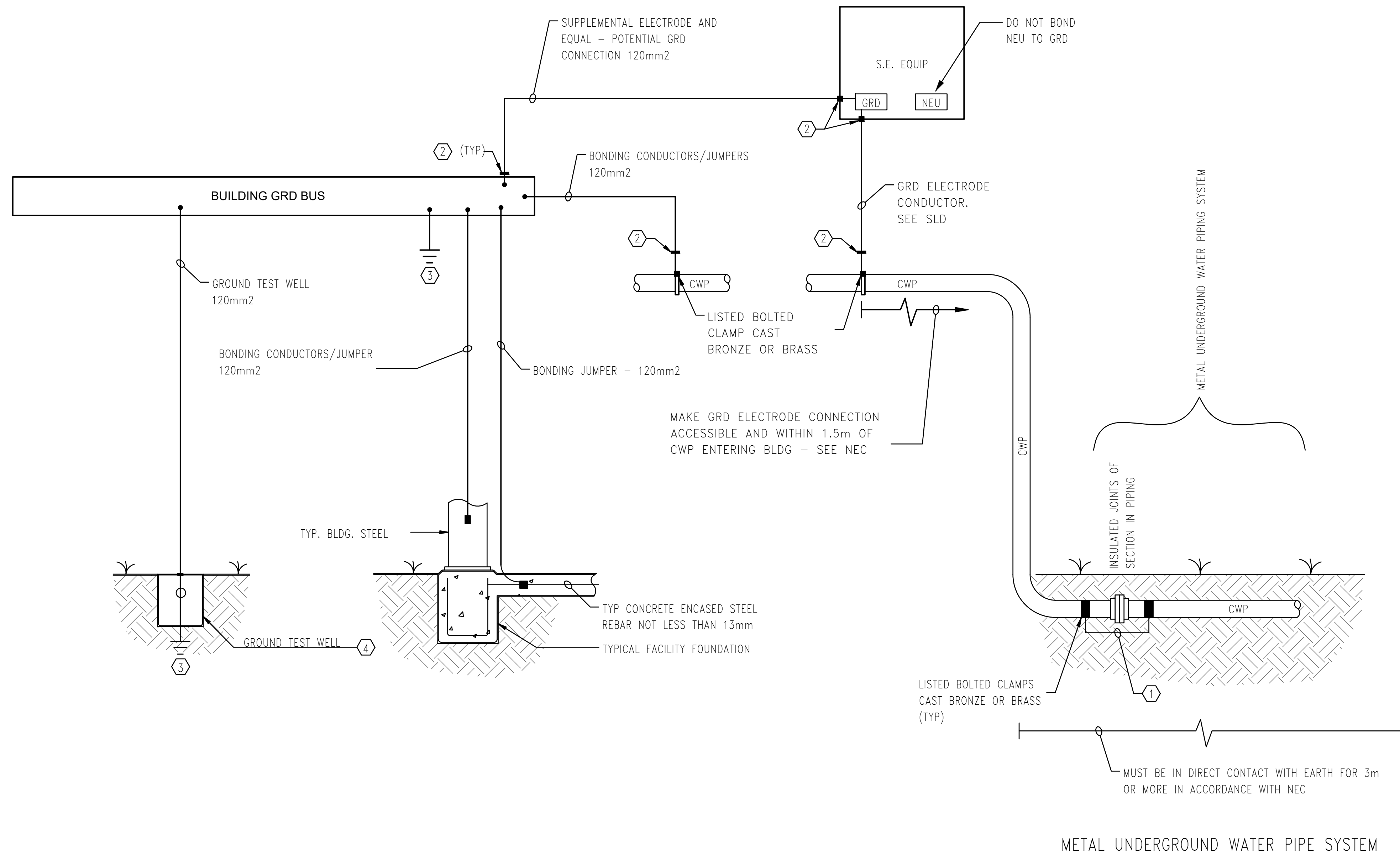
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

SHEET NOTES

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH SPECIFICATION STANDARDS.
2. ALL DIMENSIONING INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
3. THE PURPOSE OF THE GROUNDING AND BONDING SYSTEM IS TO ESTABLISH ALL EQUIPMENT ENCLOSURES, NON-CURRENT CARRYING METALLIC PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM, METAL PIPING, METAL BUILDING FRAME, ETC., AT A ZERO POTENTIAL RELATIVE TO THE EARTH GROUND AND PROVIDE FOR A SAFE, LOW IMPEDANCE RETURN PATH FOR GROUND-FAULT CURRENT. THIS SHALL BE ACCOMPLISHED IN THE FOLLOWING MANNER:
 - a. PROVIDE A SOLIDLY GROUNDED SECONDARY SYSTEM.
 - b. INTER-CONNECT ALL GROUND BUSES AND POINTS IN THE SYSTEM WITH A COPPER GRD CONDUCTOR (BUS) SYSTEM.
 - c. ALL METALLIC RACEWAYS SHALL BE UL APPROVED AND MADE-UP TIGHT AT ALL COUPLINGS AND TERMINATIONS.
 - d. ALL GROUND CONDUCTORS IN CIRCUITS SHALL BE CONTAINED WITHIN THE SAME RACEWAY AS CURRENT CARRYING CONDUCTORS.
 - e. ALL SPLICES AND TERMINATIONS SHALL BE MADE TIGHT AND AS SUCH TO PROVIDE LOW IMPEDANCE AND SHALL HAVE THE SAME SHORT-TIME CURRENT-CARRYING CAPABILITY AS THE CONDUCTOR IT IS CONNECTED TO.
 - f. ALL GRD ELECTRODES OR BONDING CONDUCTORS INSTALLED ALONE WITHIN A RACEWAY SHALL UTILIZE GRC WITH GROUNDING BUSHINGS AT EACH END. THIS GROUND CONDUCTOR SHALL LOOP THROUGH THE BUSHING LUG PRIOR TO TERMINATION. INSTALL GROUNDING JUMPERS TO GROUND BUS AS APPLICABLE.
4. ALL GRD CONDUCTORS SHALL BE CONTINUOUS AND UNBROKEN FROM EACH LOCATION INDICATED. INSTALL IN GRC WITH GRD BUSH ON EACH END.
5. GRD ELECTRODE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NEC.
6. MADE AND OTHER GRD SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH NEC.
7. ALL EQUIP NOT SUPPLIED WITH A GRD LUG SHALL BE PROVIDED WITH A LUG SIZED FOR THE GRD CONNECTION INDICATED AND PROVIDED WITH A TAP CONNECTION TO BOND EQUIP ENCLOSURE.
8. GROUNDING CONNECTIONS SHALL BE UL LISTED AND AS FOLLOWS: BELOW GRADE: EXOTHERMIC WELDING ABOVE GRADE: EXOTHERMIC WELDING, PRESSURE CONNECTORS GRD RODS (ABOVE/BELOW GRADE); EXOTHERMIC WELDING GRD BUS; PRESSURE CONNECTORS EQUIP AND DEVICES: MECHANICAL LUG
9. IN ADDITION TO THE BONDING PROVISIONS INDICATED IN THIS DETAIL PROVIDE A BONDING JUMPER FROM CWP TO HWP CONNECTIONS AT EACH WATER HEATER, BOILER, ETC., TO CONTINUE EQUAL-POTENTIAL GROUNDING AROUND EQUIPMENT.

KEYED NOTES

- ① FOR BONDING JUMPERS AROUND INSULATED JOINTS, EQUIP, ETC. ASSOCIATED WITH THE GROUND ELECTRODE THE FOLLOWING APPLIES:
 - * LENGTH: AS REQ TO PERMIT REMOVAL OF DEVICE WHILE RETAINING GROUNDING INTEGRITY.
 - * SIZE: SAME AS GRD ELECTRODE CONDUCTOR. SEE SLD.
- ② INSTALL GROUND BUSHINGS. GRD CONDUCTOR SHALL CONNECT TO BUSHING AS IT EXISTS CONDUIT SYSTEMS. PROVIDE JUMPERS TO GRD BUS AS APPLICABLE.
- ③ DRIVEN GROUND ROD
- ④ GROUND TEST WELL. SEE DETAIL



DETAIL - TYPICAL GROUNDING ELECTRODE AND BONDING SYSTEM PROVISIONS

NO SCALE

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED



INSPECTION HANDHOLE/GROUND WELL SYSTEM TEST AND SPLICE POINT DETAIL



REBAR CONNECTIONS

GENERAL REBAR GROUNDING DETAILS



GROUND CONDUCTOR TAP DETAIL (TYP)



THREE CONDUCTOR TO ROD DETAIL (TYP)

DETAIL NOTES:

1. THRU AND TAP CONDUCTOR TO TOP OF A GROUND ROD. THE ROD END CAN BE EITHER PLAIN OR THREADED USE 2 BOLT CONNECTOR FOR GROUND RODS AT TEST WELLS



1. THE ROD END CAN BE EITHER PLAIN OR THREADED.
2. CAN BE USED AS A DEAD END BY LETTING THE CONDUCTOR EXTEND ENOUGH PAST THE ROD TO EXIT THE MOLD ON THAT SIDE.

CONDUCTOR TO ROD DETAIL (TYP)

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| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: BIM 360/BOARD Engineering Contract/ESP 50 SUGAN KITCHEN.V4 |
| Submitted by: Perez APC | Plot Date: - | |
| | Plot Scale: VARIES | |
| Issued Date: | 05/01/2021 | Contract No: |



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ISSUE FOR CONSTRUCTION REV. 2
LOCAL GROUNDING DETAILS**

Sheet
Reference
Number

E5.02

CLIN 0002

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED



UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

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| Designed by: | Drawn by: EWH | Contract Date: |
| KLH | | NOVEMBER 30, 2020 |
| Reviewed by: | Dwg. Code: | File Name: |
| KLH | | S&P Station Interference vvt S&P Station Interference Seismic Program - South Sudan ESP |
| Submitted by: Perez APC | | Plot Date: - |
| | | Plot Scale: V-ARIES |
| Issued Date: 05/01/2021 | Contract No: | |

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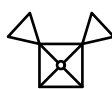

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
LUMINAIRE SCHEDULE, NOTES AND S

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E6.01

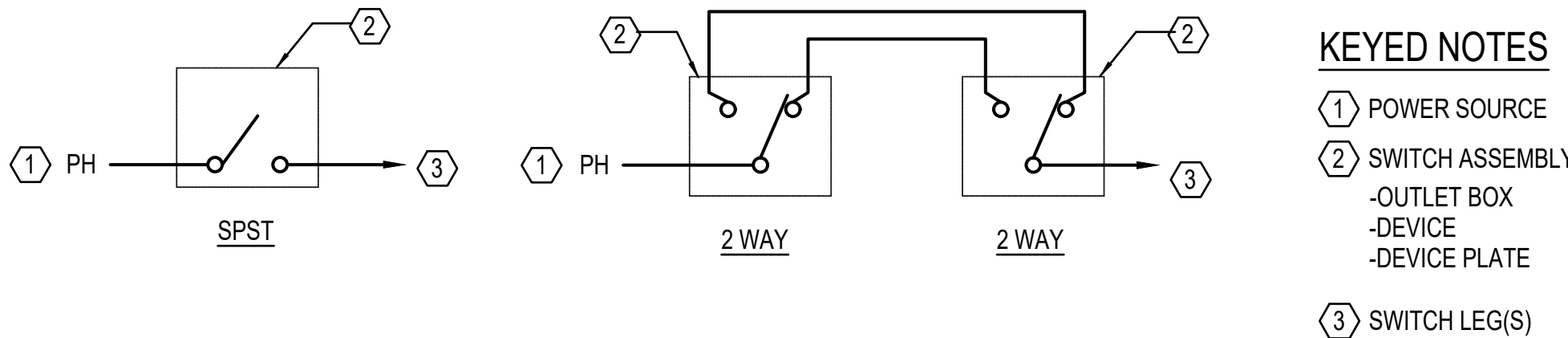
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LUMINAIRE SCHEDULE

| MARK | DESCRIPTION | | BASIS OF DESIGN MANUFACTURER, MODEL & CATALOG NUMBER | VOLTS | MOUNTING | REMARKS |
|---|-------------|--------|---|-------|----------|--|
| | TYPE | LUMENS | | | | |
| A | 37W LED | 3100 | METALUX LIGHTING MODEL: WPLD SERIES LOW PROFILE LED WRAPAROUND CAT: 4WPLD3135R9 | UNV | S | LED 1 X 4 SURFACE MOUNTED LOW PROFILE WRAPAROUND FOR MOUNTING TO HARD CEILINGS. LUMINAIRE SHALL BE EQUIPPED WITH ACRYLIC POLYCARBONATE LENS. LUMINAIRE SHALL BE UL LISTED FOR DAMP LOCATION. |
| B | 55W LED | 5680 | METALUX LIGHTING MODEL: WSNLED SERIES LOW PROFILE LED WRAPAROUND CAT: 4WSNLEDL456HLFUNV1835 | UNV | S | LED 1 X 4 SURFACE MOUNTED LOW PROFILE WRAPAROUND FOR MOUNTING TO HARD CEILINGS. LUMINAIRE SHALL BE EQUIPPED WITH ACRYLIC POLYCARBONATE LENS. LUMINAIRE SHALL BE UL LISTED FOR DAMP LOCATION. |
| C | 74W LED | 7360 | KENDALL LIGHTING MODEL: FES SERIES LOW PROFILE LED WRAPAROUND CAT: FES124867135KDCDD2HP | UNV | S | LED 1 X 4 SURFACE MOUNTED LOW PROFILE WRAPAROUND FOR MOUNTING TO HARD CEILINGS. LUMINAIRE SHALL BE EQUIPPED WITH PEARLESCENT POLYCARBONATE LENS. LUMINAIRE SHALL BE NSF RATED FOR FOOD PROCESSING APPLICATIONS. |
| WP | 21W LED | 2100 | LUMARK LIGHTING MODEL: XTOR SERIES WALL PACK CAT: AXCS2A-CBP | UNV | S | LED EXTERIOR LOW PROFILE WALL PACK. LUMINAIRE SHALL BE EQUIPPED WITH IMPACT RESISTANT LENS AND DARK BRONZE FINISH. PROVIDE WITH PHOTOCELL CONTROL. LUMINAIRE SHALL BE UL LISTED FOR WET LOCATION. PROVIDE WITH COLD WEATHER BATTERY PACK WHEN NOTED. |
|  | 1.8W LED | - | SURE-LITE LIGHTING MODEL: AP2S0LED EMERGENCY LIGHT CAT: AP2S0LED | UNV | W | LED EMERGENCY LIGHTING BATTERY UNIT. PROVIDE WITH TWO HEADS AND SEALED MAINTENANCE FREE NICKEL-CADMIUM BATTERY. |
|  | 2.5W LED | - | LEGRAND (KENDALL) NO: METSU-MW-R-DT OR APPROVED EQUAL | UNV | U | EXIT LIGHT WITH LED STENCIL FACE. WHITE HOUSING WITH RED LETTERS. PROVIDE DIRECTIONAL ARROWS AS REQUIRED. |

NOTES:

ALTERNATE LUMINAIRES MANUFACTURED THAT MEET THE STYLE, PERFORMANCE AND AESTHETIC CHARACTERISTICS AS THE BASIS OF DESIGN PRODUCT MAY BE PROVIDED AS AN ALTERNATE SUBJECT TO ENGINEER AND ARCHITECT APPROVAL.



DETAIL-TYPICAL SWITCHING ARRANGEMENTS

NO SCALE

LED SPECIFICATIONS

LED LUMINAIRES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RATINGS. LUMINAIRE MANUFACTURER SHALL HAVE BEEN ENGAGED IN MANUFACTURING LUMINAIRES AND ACCESSORIES FOR 10 YEARS PRIOR TO BID OPENING. LUMINAIRES SHALL HAVE BEEN IN SATISFACTORY COMMERCIAL OR INDUSTRIAL USE FOR TWO YEARS PRIOR TO BID OPENING. ALL LUMINAIRES SHALL MEET ANY NATIONAL, LOCAL OR LEED REGULATIONS.

a. LED INTERIOR.

| TYPE | COLOR TEMP | LUMEN OUTPUT | CRI | LUMENS PER WATT | LUMEN MAINTENANCE PERCENTAGE | LUMEN MAINTENANCE HOUR INTERVAL |
|--------------------|------------|--------------|-----|-----------------|------------------------------|---------------------------------|
| LINEAR TROFFER | 3,500K | 4,800 | - | 102 | 90 | 60,000 |
| DOWNLIGHTS | 3,500K | 1,500 | - | 85 | 70 | 50,000 |
| HIGH/BAY | 4,000K | 15,000 | 80 | 110 | 70 | 100,000 |
| AREA LIGHTING | 5,000K | 11,500 | 70 | 110 | 96 | 100,000 |
| EXTERIOR WALL PACK | 5,000K | 11,500 | 67 | 110 | 70 | 100,000 |

LEED LUMINAIRE NOTES

1. THE CONTRACTOR SHALL VERIFY THAT LUMINAIRES ARE INSTALLED, AIMED, AND SHIELDED AS INDICATED IN DESIGN DOCUMENTS.
2. INSTALLED LUMINAIRES SHALL BE FURNISHED WITH CUT SHEETS THAT INDICATE COMPLIANCE WITH DESIGN DOCUMENTS.
3. INSTALL LAMPS SHALL BE FURNISHED WITH DATA SHEETS OR MANUFACTURER'S STATEMENT STATING COMPLIANCE WITH SPECIFIED LEVELS AND STANDARDS.
4. AUTOMATIC LIGHTING CONTROLS SHALL BE FURNISHED WITH DOCUMENTATION SHOWING COMPLIANCE WITH DESIGN DOCUMENTS. WHEN APPLICABLE, CONTROL SCHEDULES SHOWING SEQUENCE OF OPERATION SHALL BE PROVIDED.

LUMINAIRE SCHEDULE AND CHART - KEY LEGEND & TERMINOLOGY

| <u>LAMP TYPES</u> | | <u>LAMP DESIGNATION</u> | | <u>LUMINAIRE MOUNTING</u> | | <u>IES LIGHTING TERMS</u> | |
|-------------------|----------------------|-------------------------|------------------------------|---------------------------|-----------------|---------------------------|--|
| LED | LIGHT EMITTING DIODE | A | A - LAMP | C | CEILING | CCT | COLOR CORRECTED TEMPERATURE |
| | | FL | FLOOD | CB | CONCRETE BASE | CRI | COLOR RENDERING INDEX |
| | | MFL | MEDIUM FLOOD | CH | CHAIN HANG | CU | COEFFICIENT OF UTILIZATION |
| | | NFL | NARROW FLOOD | D | DESK | CDC | CANDLE POWER DISTRIBUTION CURVE |
| | | WFL | WIDE FLOOD | F | FLOOR | CBCP | CENTER BEAM CANDLE POWER |
| | | HO | HIGH OUTPUT | G | GRADE | FC | FOOTCANDLES |
| | | IF | INSIDE FROSTED | P | PENDANT | K | DEGREES KELVIN |
| | | MR | MIRRORED REFLECTOR | PT | POST TOP | LUX | METRIC FOOTCANDLE (FC X 10.8) |
| | | PAR | PARABOLIC ALUMINUM REFLECTOR | R | RECESS | RCR | ROOM CAVITY RATIO |
| | | SP | SPOT | RL | RECESS LAY - IN | LUMENS | MEASURED OUTPUT OF LAMP, LUMINAIRE, OR BOTH |
| | | VHO | VERY HIGH OUTPUT | RF | RECESS FLANGE | | |
| | | W | WATT | RW | RECESS WALL | LUMINAIRE | COMPLETE LIGHTING UNIT, INCLUDING LAMP, REFLECTOR, AND HOUSING |
| | | | | S | SURFACE | | |
| | | | | SR | SEMI - RECESS | | |
| | | | | T | TRACK | | |
| | | | | U | UNIVERSAL | | |
| | | | | UC | UNDERCABINET | | |
| | | | | W | WALL | | |

A

B

C

D

E

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

LIGHTNING PROTECTION SYSTEM LEGEND

- (A) LIGHTNING PROTECTION SYSTEM - AIR TERMINAL
- (A) LIGHTNING PROTECTION SYSTEM - AIR TERMINAL - RIDGE MTD
- (P) LIGHTNING PROTECTION SYSTEM - PENETRATION DEVICE
- ROD LIGHTNING PROTECTION SYSTEM - DRIVEN GROUND ROD
- L LIGHTNING PROTECTION SYSTEM - MAIN ROOF CONDUCTOR SYSTEM
- D LIGHTNING PROTECTION SYSTEM - DOWN LEAD CONDUCTOR SYSTEM
- G LIGHTNING PROTECTION SYSTEM - GROUNDING CONDUCTOR BELOW GRADE
- CONDUCTOR SYSTEM TO EQUIPMENT BOND CONNECTOR

PHOTO-VOLTAIC MODULE NOTES

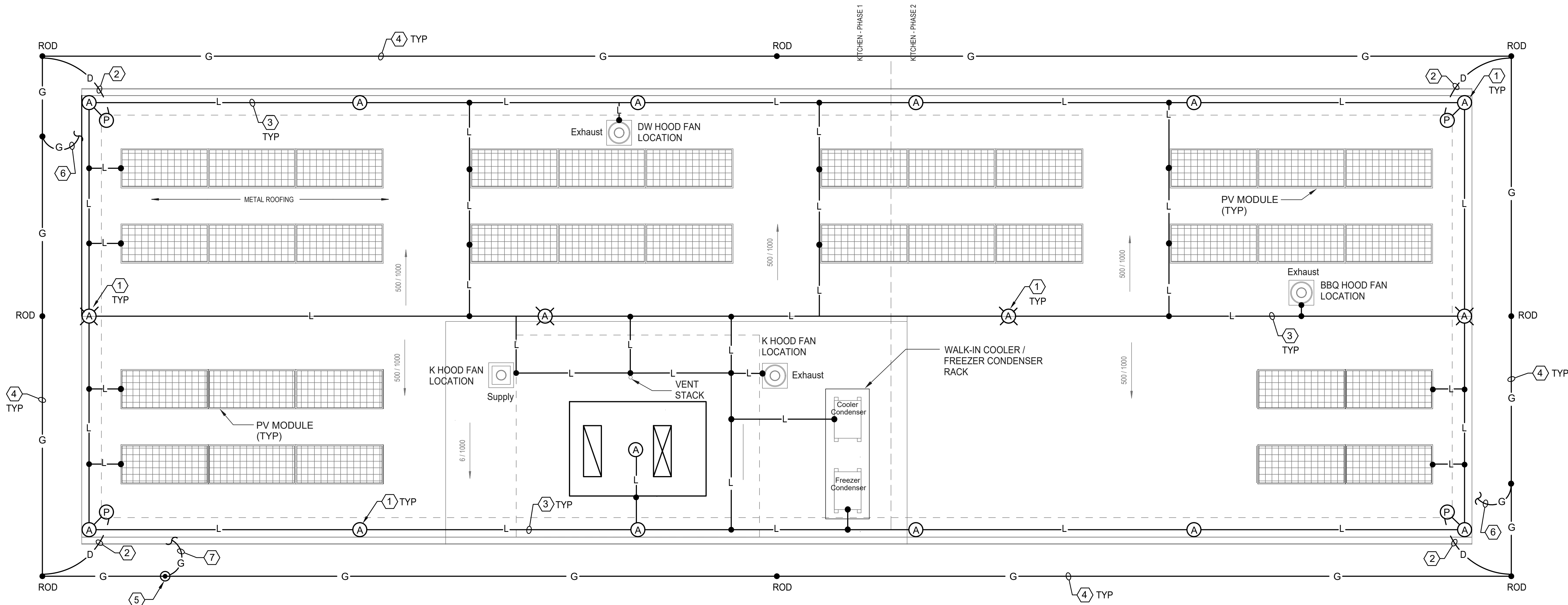
1. INSTALL AND CONNECT PV ARRAY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS APPROVED FOR GRID CONNECTION.
2. PV MODULE SUPPORTS SHALL BE SUITABLE FOR ROOF STRUCTURE AND PROVIDED WITH PROPER SUPPORTS TO MAINTAIN PV PANELS, 4-DEGREES TO HORIZONTAL

SHEET NOTES

1. SEE TYPICAL DETAILS, SHEET E8.02
2. INSTALL A COMPLETE LIGHTNING PROTECTION SYSTEM AT EQUAL POTENTIAL GROUND, BONDED TOGETHER AS ONE COMPLETE SYSTEM.
3. ALL GROUND CONNECTIONS FOR BUILDING GROUNDING SYSTEM SHALL BE EXOTHERMIC WELD (CADWELD OR EQUAL) AND ROOFTOP LIGHTNING PROTECTION SYSTEM CONNECTIONS SHALL BE MECHANICAL OR EXOTHERMIC WELD TYPE.
4. FURNISH AND INSTALL A UL LABELED LIGHTNING PROTECTION SYSTEM.
5. GROUND SYSTEM IMPEDANCE NOT TO EXCEED 10 OHMS.
6. ALL MATERIALS SHALL BE AS REQUIRED IN NFPA 780.
7. ALL AIR TERMINALS SHALL BE A MINIMUM OF 460mm IN LENGTH.

KEYED NOTES

- 1 AIR TERMINAL.
- 2 LIGHTNING PROTECTION DOWN LEAD CONDUCTOR. CONNECTION TO GRID.
- 3 LIGHTNING PROTECTION ROOF CONDUCTOR.
- 4 INSTALL COUNTERPOISE AROUND FACILITY INTERCONNECTING ALL GROUNDING SYSTEMS TO EARTH.
 - * 800mm BELOW GRADE
 - * 1m MIN FROM BUILDING (PAST DRIP LINE)
 - * NOT TO EXCEED 2.4m FROM BUILDING
 - * 70mm2 BARE CU
- 5 INSTALL GROUND TEST WELL. SEE DETAIL A/E5.02
- 6 GROUND CONNECTION TO THE CONCRETE REINFORCING STEEL .
- 7 TO MAIN GROUND BUS BAR. SEE SHEET E5.01
 - * 70mm2
 - * BOND ALL METALLIC PANELS TO GRD BUSBAR



Sheet
Reference
Number

E8.01

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
KITCHEN - LIGHTNING PROTECTION
PLAN

Perez.

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| Contract Date: NOVEMBER 30, 2020 | Drawn by: EWH | Drwg. Code: | Plot Scale: VARIES |
| NO NUMBER | Reviewed by: KLH | | Plot Scale: VARIES |
| NO NUMBER | Submitted by: Perez APC | | Plot Scale: VARIES |
| NO NUMBER | Issued Date: 08/01/2021 | Contract No: 447-004-15-0001 / 7268622F0003 | |
| NO NUMBER | Deliverable Date: 08/16/2022 | | |

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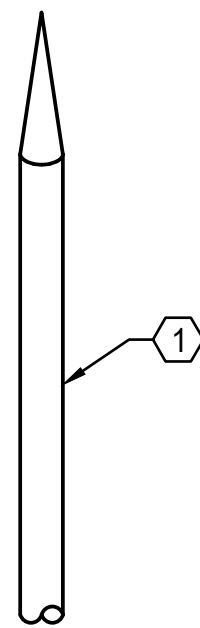
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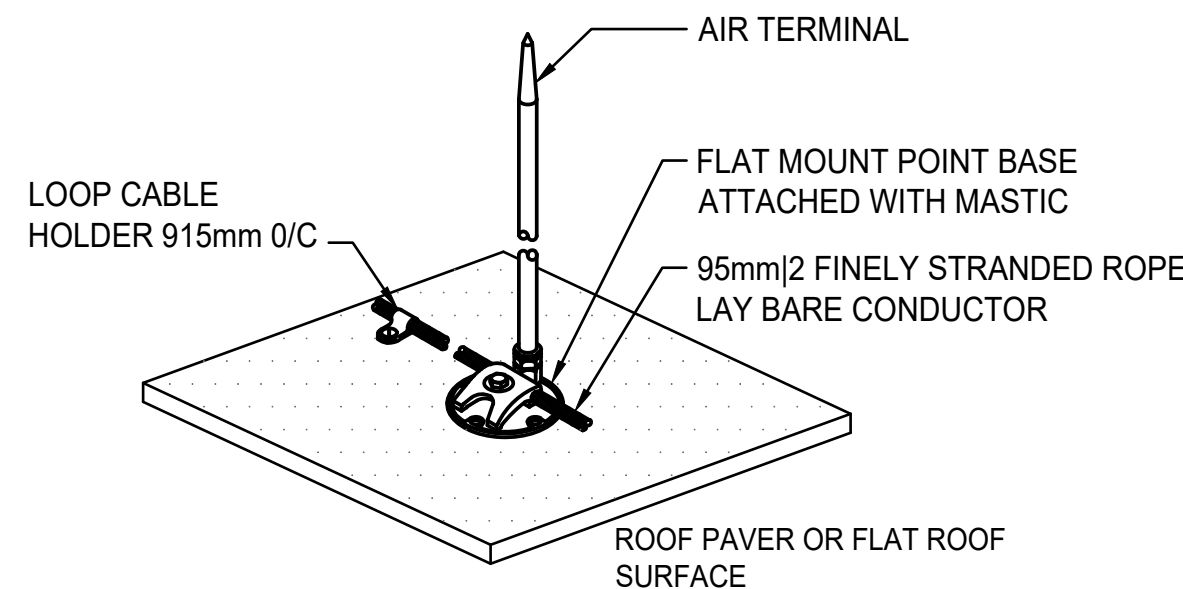
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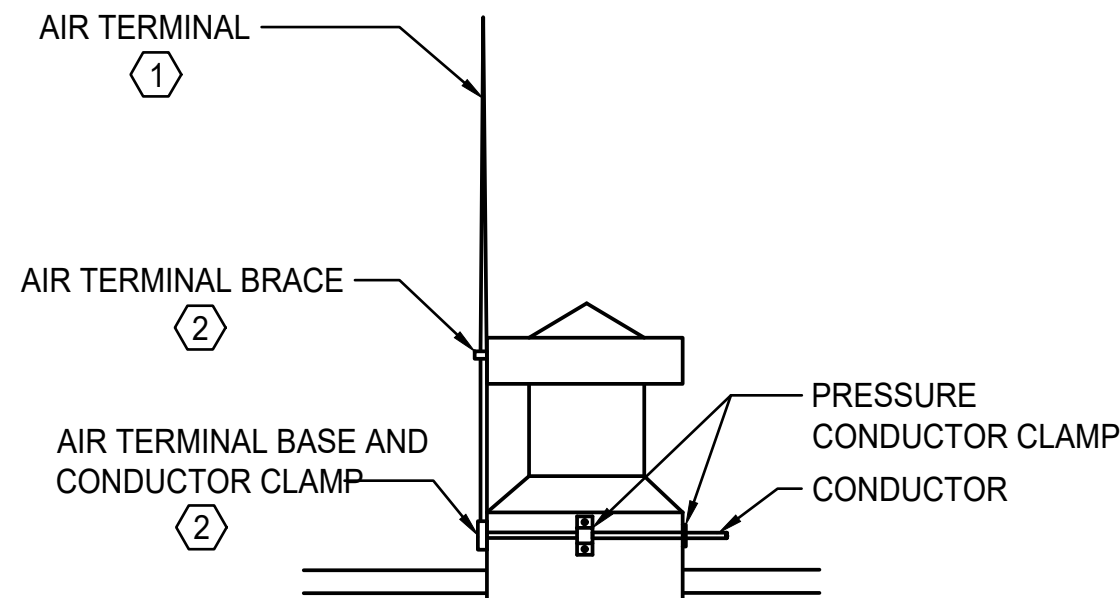
NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



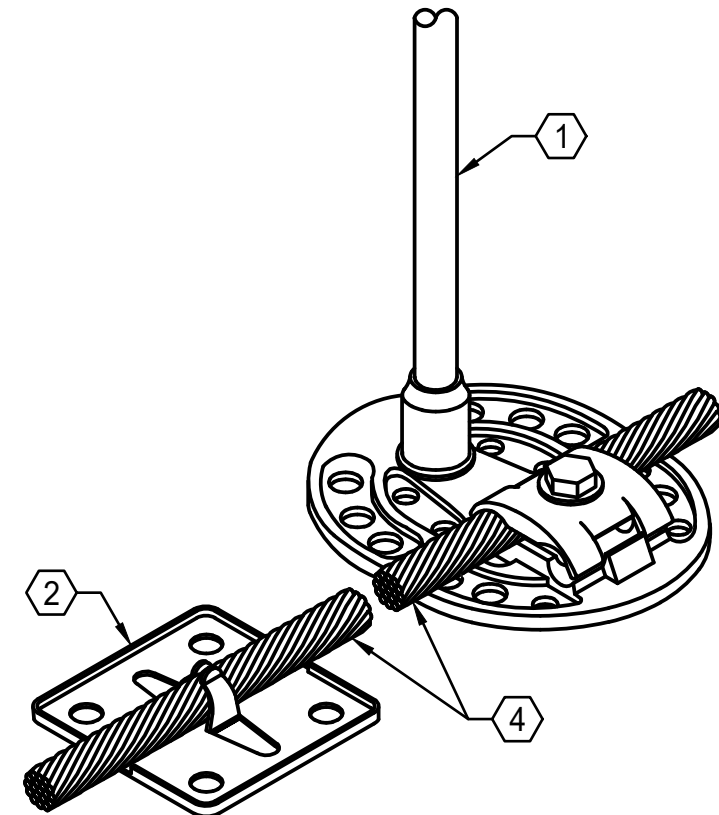
STRIKE TERMINATION
DEVICE - AIR
TERMINAL



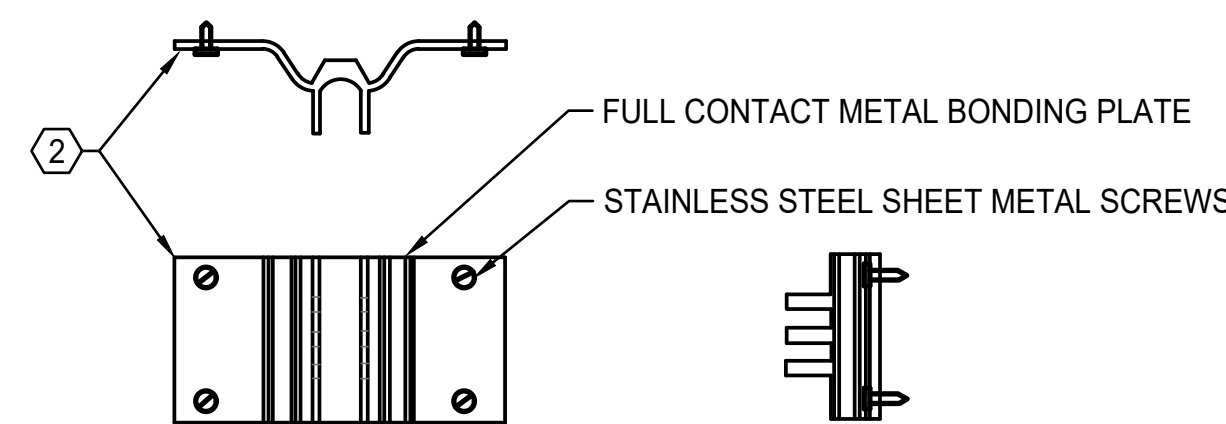
AIR TERMINAL ON SURFACE DETAIL (TYP)



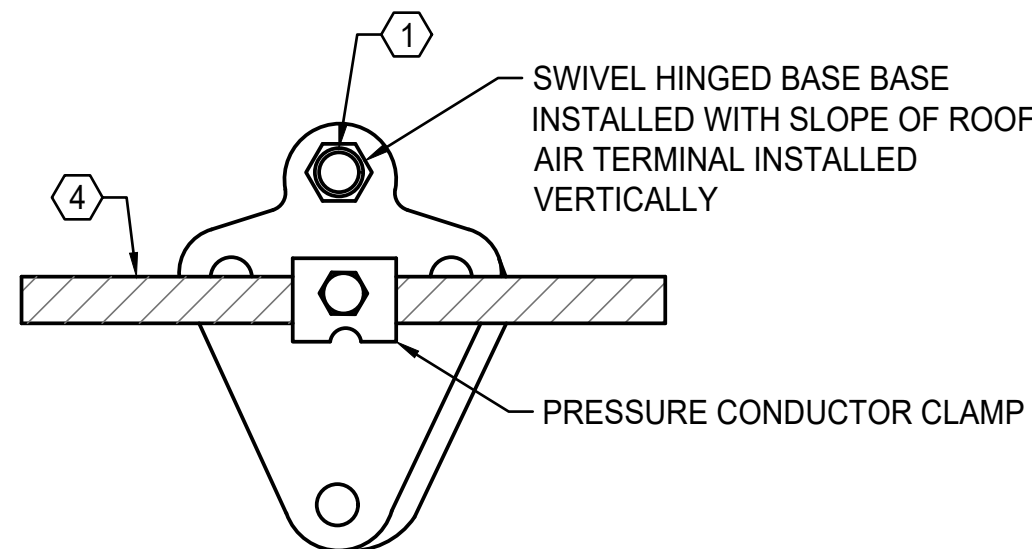
AIR TERMINAL - SIDE MOUNTED TO VENT



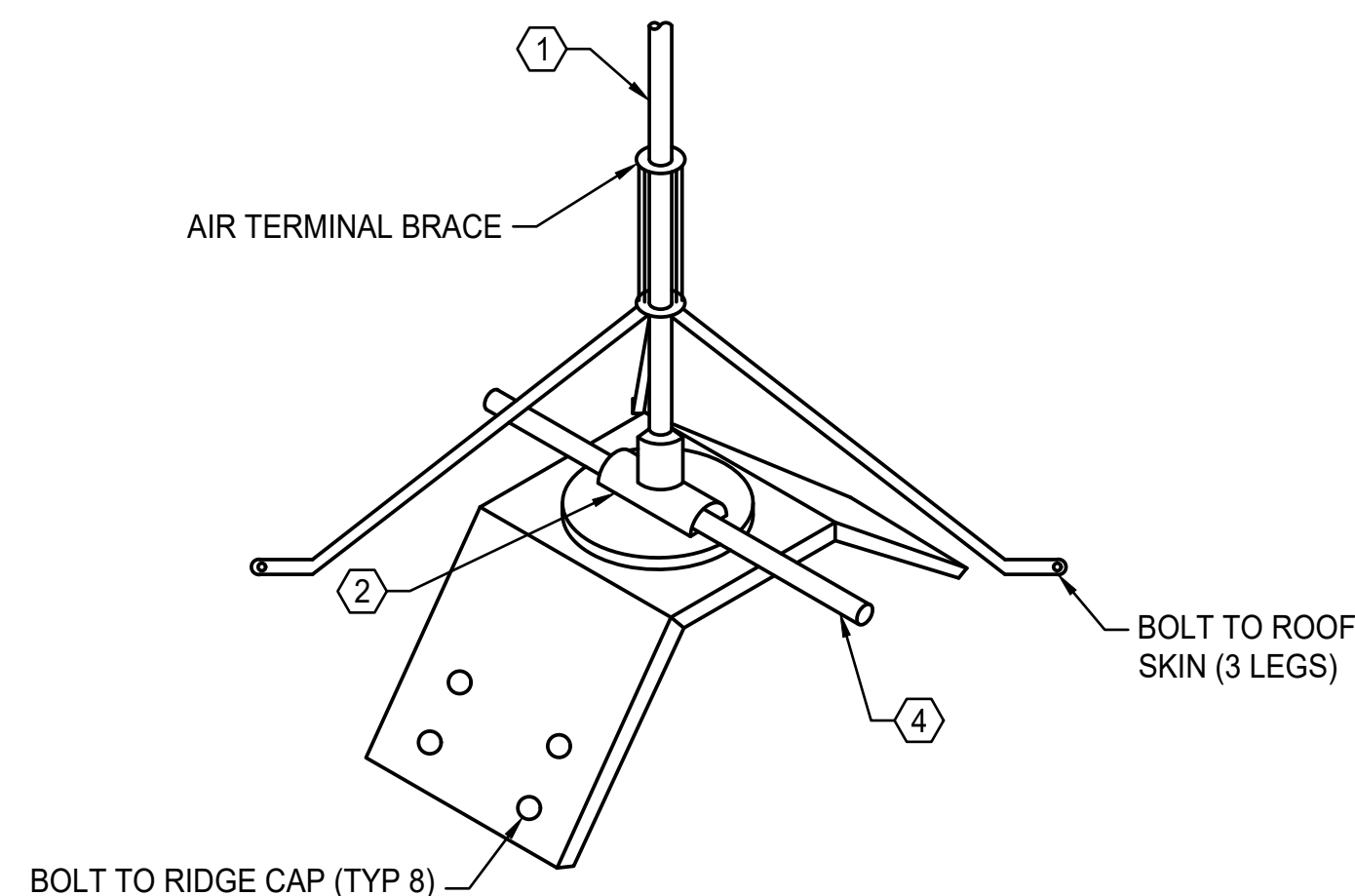
ADHESIVE SUPPORT



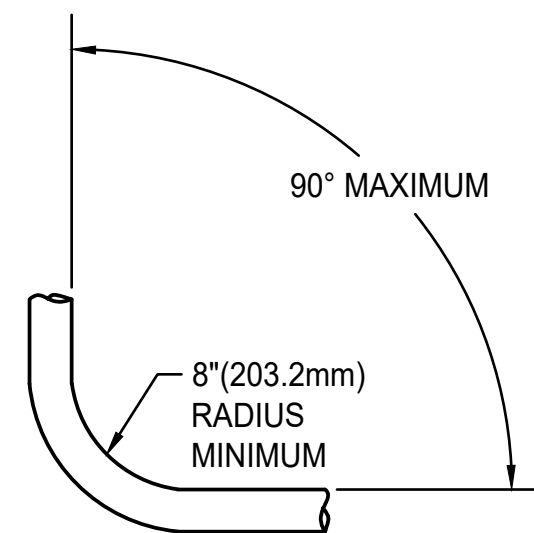
PRESSURE CONDUCTOR CLAMP



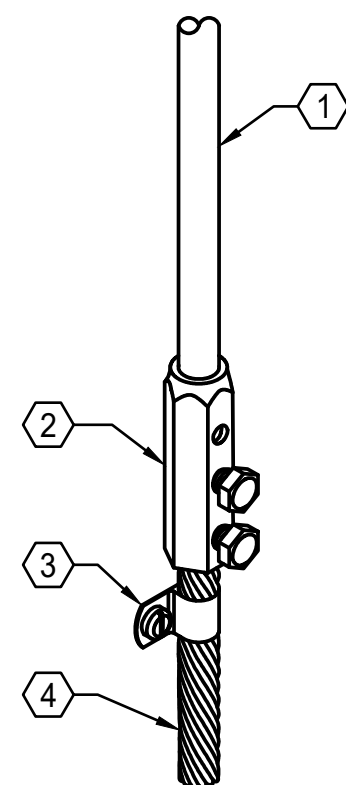
SWIVEL HINGED BASE SUPPORT



RIDGE SADDLE BASE



CONDUCTOR BENDS

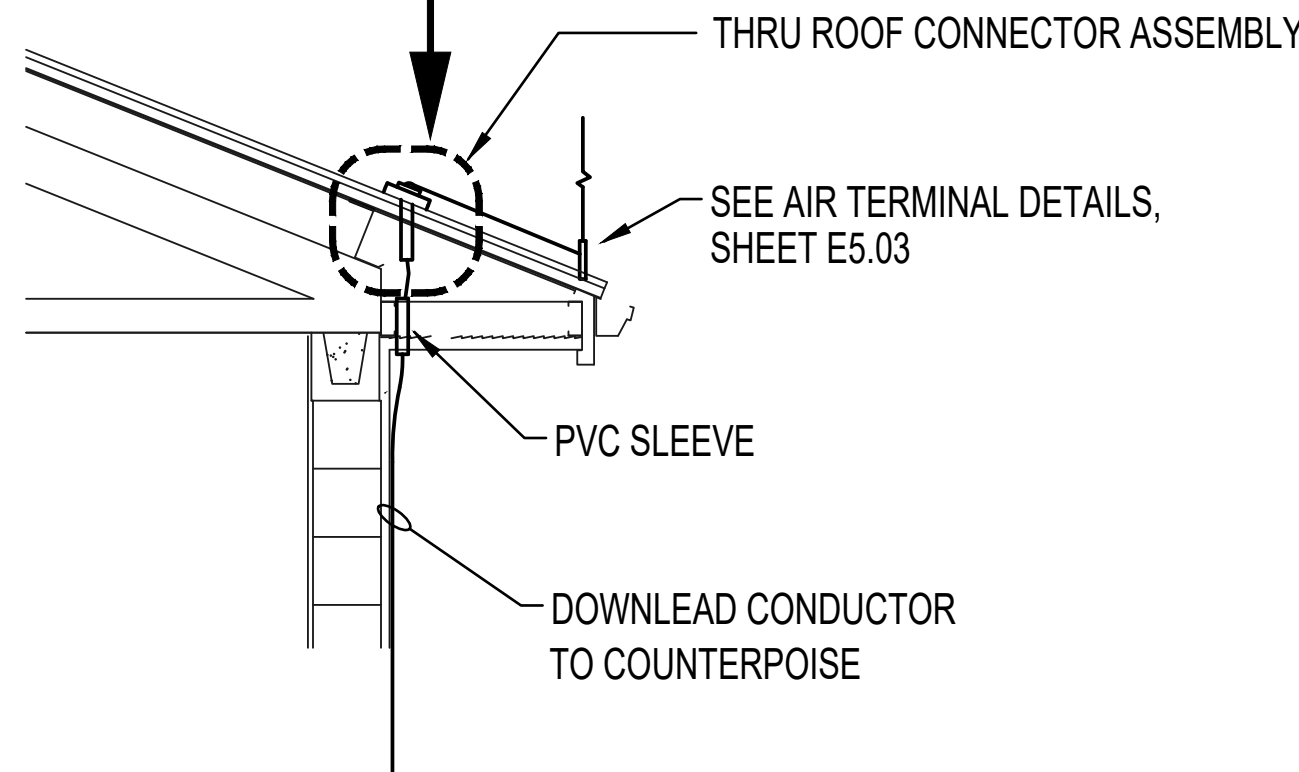


VERTICAL CONNECTION

COPPER OR ALUMINUM,
CLASS I OR CLASS II
LIGHTNING PROTECTION
CONDUCTOR

THRU-ROOF CONNECTOR

COPPER OR ALUMINUM, CLASS I
OR CLASS II LIGHTNING
PROTECTION CONDUCTOR



THROUGH ROOF CONNECTOR ASSEMBLY

B
E8.02
NO SCALE

SHEET NOTES

- THE COMPLETED INSTALLATION SHALL MEET THE REQUIREMENTS OF THE FOLLOWING:
 - * NFPA-780 STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS
 - * UL-96A INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS.
- THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED COMPLETE WITH LISTED, LABELED OR APPROVED COMPONENTS AND SHALL BE THE MANUFACTURER'S LATEST UL APPROVED DESIGN.
- THE SYSTEM DESIGN AND INSTALLATION AS A MINIMUM SHALL CONSIST OF THE FOLLOWING:
 - * STRIKE TERMINATION DEVICES (AIR TERMINALS)
 - * MAIN CONDUCTORS
 - * DOWN CONDUCTORS
 - * BONDING
 - * GROUND TERMINATIONS
 - * SURGE PROTECTIVE DEVICE (SPD)
- COPPER LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL NOT BE MOUNTED TO ALUMINUM SURFACES. ALUMINUM COMPONENTS SHALL BE USED TO AVOID ELECTROLYTIC CORROSION.
- GROUNDING METAL BODIES WITHIN THE BONDING DISTANCE DETERMINED BY NFPA 780 SHALL BE BONDED TO THE SYSTEM IN ACCORDANCE WITH CODE REQUIREMENTS.
- ANY UNDERGROUND METALLIC PIPING ENTERING THE BUILDING SHALL BE BONDED TO THE NEAREST CONDUCTOR OR GROUND ELECTRODE.
- ADHESIVE USED WITH ADHESIVE AIR TERMINAL BASES AND CONDUCTOR FASTENERS SHALL BE COMPATIBLE WITH ROOFING MEMBRANE - VERIFY WITH ROOFING SPECIFICATIONS.

KEYED NOTES

- STRIKE TERMINATION DEVICE - TYPE SPECIFIED THIS SHEET. PROVIDE PROPER SUPPORT.
- PROVIDE THE PROPER FITTINGS AS REQUIRED BY THE LISTINGS OF THE MANUFACTURER FOR THE SYSTEM INSTALLED.
- PROVIDE THE PROPER FASTENER SYSTEMS AS REQUIRED BY THE LISTINGS OF THE MANUFACTURER FOR THE SYSTEM INSTALLED.
- MAIN CONDUCTOR SYSTEM SPECIFIED.



| Contract Date | Drawn by | Drng. Code | Plot Date | Contract No. | Deliverable Date |
|-------------------|-----------|------------|-----------|--------------|------------------|
| NOVEMBER 30, 2020 | EWH | | | VARIES | 08/16/2022 |
| FILE NAME | KLH | | | | |
| REVIEWED BY | KLH | | | | |
| SUBMITTED BY | Perez APC | | | | |
| DESIGNED BY | KLH | | | | |
| DESCRIPTION | | | | | |
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| APPR. SYMBOL | | | | | |
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| Contract Date: NOVEMBER 30, 2020 | Drawn by: EWH | Drng. Code: | Plot Date: | Contract No.: | Deliverable Date: |
| FILE NAME: KLH | KLH | | | VARIES | 08/16/2022 |
| REVIEWED BY: KLH | KLH | | | | |
| SUBMITTED BY: Perez APC | Perez APC | | | | |
| DESIGNED BY: KLH | KLH | | | | |

Perez.

USAID SOUTH SUDAN, ENGINEERING
SUPPORT PROGRAM
ISSUE FOR CONSTRUCTION REV. 2
LIGHTNING PROTECTION
SYSTEM DETAILS

Sheet
Reference
Number

E8.02

CLIN 0002

A

B

C

D

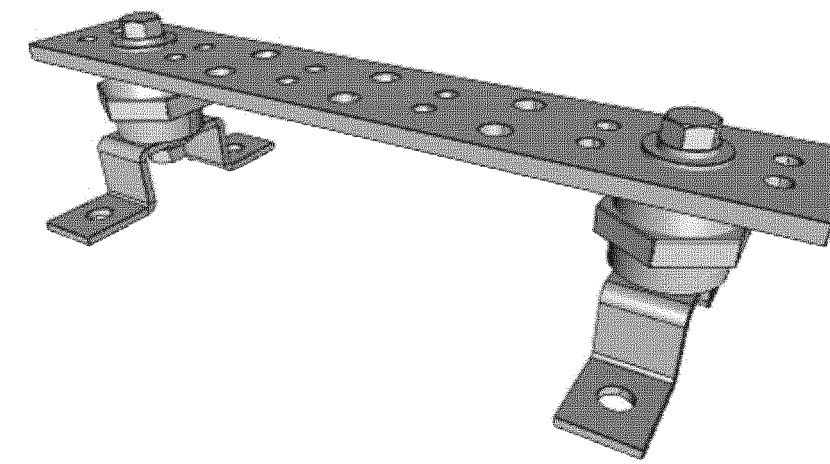
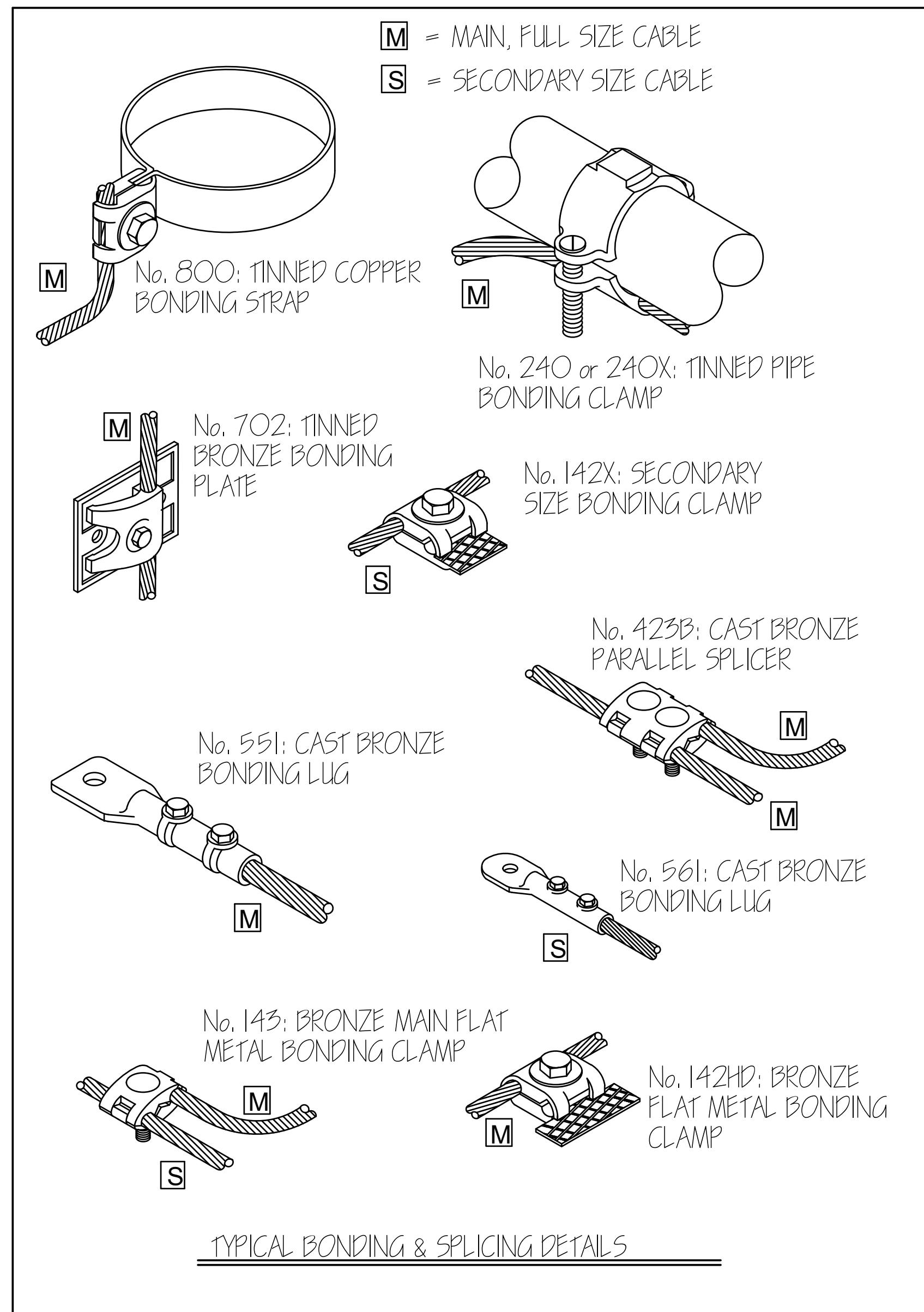
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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

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KEYED NOTES

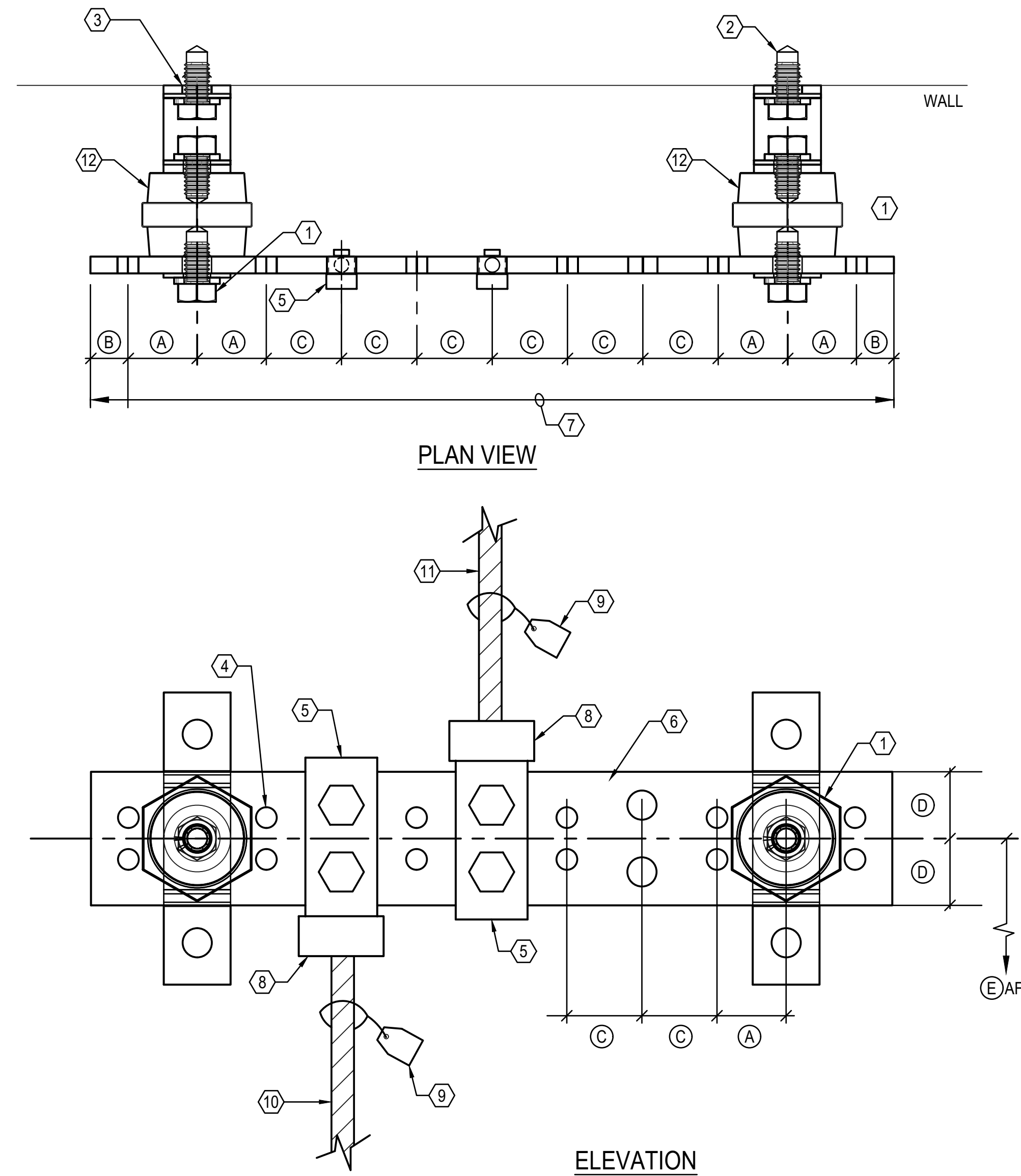
- 1 9.52mm (3/8") X 38.1mm (1 1/2") SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
- 2 9.52mm (3/8") EXPANSION ANCHOR
- 3 14.29mm (9/16") HOLE IN BAR
- 4 DRILLED DOUBLE CONNECTOR HOLES
- 5 FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #4/0 (SINGLE LUGS ONLY)
- 6 50.8mm (2") WIDE, 6.35mm (1/4") DEEP COPPER BUS BAR.
- 7 LENGTH AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS OR AS SPECIFICALLY INDICATED ON DRAWINGS. PROVIDE INTERMEDIATE WALL SUPPORTS AS REQUIRED.
- 8 TYP CU GRD CONDUCTOR CONNECTION
- 9 DESCRIPTION TAG. STATE SIZE OF CONDUCTOR AND TO WHAT IT IS CONNECTED TO.
- 10 TYP GRD CONNECTION FROM BELOW. SEE APPLICABLE DETAILS FOR SLAB PENETRATIONS.
- 11 TYP GRD CONNECTION FROM ABOVE. SEE APPLICABLE DETAILS FOR RMC INSTALLATIONS.
- 12 INSULATED NON-CONDUCTIVE STANDOFF(S) - 2,700 VOLT CLASS.



| DIMENSION BLOCK | | |
|-----------------|---------|---------|
| REF | SI | ENGLISH |
| A | 26.3mm | 1-1/16" |
| B | 14.22mm | 9/16" |
| C | 28.58mm | 1-1/8" |
| D | 25.4MM | 1" |
| E | 457MM | 1'-6" |

GROUND BUS NOTES

1. GROUND BUS INSTALLATION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND AS INDICATED ON THE DRAWINGS.



DETAIL - TYPICAL GROUND BUS PROVISIONS

A
E8.03

NO SCALE

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SYSTEM DETAILSSheet
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E8.03

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AERIAL SITE LEGEND

| AERIAL SITE LEGEND | | |
|---|---|---------------------------------------|
| NEW | EXISTING | DESCRIPTION |
|  |  | UTILITY POLE - SEE POLE SCHEDULE |
|  |  | SINGLE DOWN GUY AND ANCHOR ASSEMBLY |
|  |  | DOUBLE DOWN GUY AND ANCHOR ASSEMBLIES |
|  |  | CUTOUT SWITCH ASSEMBLY |
|  |  | OVERHEAD SECONDARY |
|  |  | OVERHEAD STREET LIGHT CIRCUIT |
|  |  | OVERHEAD COMMUNICATIONS CIRCUIT |

MISCELLANEOUS SITE LEGEND

| MISCELLANEOUS SITE LEGEND | |
|---|------------------------|
| — W — | WATER LINE |
|  | FIRE HYDRANT |
| — SS — | SANITARY SEWER LINE |
| — (S) — | SANITARY SEWER MANHOLE |
| — G — | GAS LINE |
|  | GAS METER |
| — * * * * * | FENCEING |












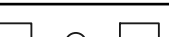





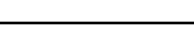
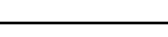
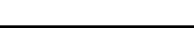
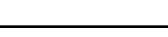
SITE NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING SITE CONDITIONS. ANY EXISTING BURIED OR OVERHEAD UTILITY SYSTEMS IN DIRECT CONFLICT WITH PROPOSED SITE IMPROVEMENTS SHALL BE RELOCATED BY THE CONTRACTOR.
2. PROPER CARE SHALL BE TAKEN TO ENSURE CONTINUOUS CONTINUITY OF ALL UTILITY SYSTEMS. ALL SYSTEM DISRUPTIONS SHALL BE SCHEDULED AND APPROVED IN WRITING PRIOR TO DISCONNECTING. ANY DAMAGED UTILITY SYSTEMS SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY AT THE CONTRACTORS EXPENSE.

GENERAL SITE DEMOLITION NOTES

1. PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED WITH THE CONTRACTING OFFICER IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT UTILITIES OR SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE.
2. ALL EXCAVATIONS AND/OR DEMOLITION WORK REQUIRED SHALL BE PERFORMED WITH CARE SO AS NOT TO INTERRUPT OTHER EXISTING SERVICES (WATER, GAS, ELECTRICAL, SEWER, SPRINKLERS, ETC.). IF ACCIDENTAL UTILITY INTERRUPTION, DAMAGE, ETC., RESULTS FROM WORK PERFORMED BY THE CONTRACTOR, THE AFFECTED UTILITY OR SERVICE SHALL BE RETURNED TO ITS ORIGINAL CONDITION WITHOUT DELAY, BY AND AT THE EXPENSE OF THE CONTRACTOR, USING SKILLED WORKMEN OF THE TRADE INVOLVED.
3. SYMBOLS SHOWN ARE TYPICAL AND LOCATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO LIMIT THE AMOUNT OF DEMOLITION. COORDINATE WITH EXISTING CONDITIONS AND THESE NOTES AND REMOVE ALL APPLICABLE SYSTEMS AND COMPONENTS CONFLICTING WITH FINISHED DESIGN INTENT.
4. TRENCH, CUT AND REMOVE EXISTING SURFACES AS REQUIRED FOR THE INSTALLATION OF ALL NEW ELECTRICAL PROVISIONS.
5. IN GENERAL, THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - A. PROVIDE ALL DEMOLITION AS REQUIRED OF EXISTING SYSTEMS REMOVING ALL ITEMS THAT CONFLICT WITH FINISHED DESIGN INTENT AS INDICATED ABOVE.
 - B. MODIFY, REPLACE, REPAIR, REVISE ETC., EXISTING SYSTEMS AND/OR EQUIPMENT AS INDICATED.
 - C. EXTEND EXISTING SYSTEMS AS REQUIRED TO FUNCTION AS SPECIFIED AND IN ACCORDANCE WITH SYSTEM REQUIREMENTS.
 - D. NEW SYSTEM COMPONENTS SHALL MATCH EXISTING SYSTEMS PROVISIONS AND BE COMPLETELY COMPATIBLE AND IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. WHEN REQUIRED, APPROVAL FROM A SYSTEM MANUFACTURER SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO INSTALLING ANY NEW EQUIPMENT OR DEVICES TO AN EXISTING SYSTEM.

UNDERGROUND SITE LEGEND

| UNDERGROUND SITE LEGEND | | |
|--|---|--|
| NEW | EXISTING | DESCRIPTION |
|  |  EX | PAD MOUNTED TRANSFORMER (PMT) |
|  |  EX | PAD MOUNTED SWITCH (PMT) |
|  MH |  EMH | MANHOLE |
|  HH |  EHH | HANDHOLE |
|  |  | SINGLE UNIT LIGHTING STANDARD - TYPE NOTED |
|  |  | DOUBLE UNIT LIGHTING STANDARD - TYPE NOTED |
|  | | LIGHTING STANDARD LUMINAIRE - NIGHT LIGHT |
|  BD |  BD | LIGHTING BOLLARD |
|  |  | GRADE MOUNTED FLOOD LIGHT - TYPE NOTED |
|  US |  EUS | UNDERGROUND SECONDARY |
|  UC |  EUC | UNDERGROUND COMMUNICATIONS |

SITE DEMOLITION LEGEND

| SITE DEMOLITION LEGEND | |
|------------------------|--|
| | EXISTING UTILITY POLE TO BE REMOVED |
| | EXISTING POLE MTD LUMINAIRE TO BE REMOVED |
| | EXISTING OVERHEAD SECONDARY CIRCUIT TO BE REMOVED |
| | EXISTING OVERHEAD STREET LIGHT CIRCUIT TO BE REMOVED |
| | EXISTING OVERHEAD COMMUNICATION CIRCUIT TO BE REMOVED |
| | EXISTING UNDERGROUND SECONDARY CIRCUIT TO BE REMOVED |
| | EXISTING UNDERGROUND COMMUNICATION CIRCUIT TO BE REMOVED |

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SITE NOTES & LEGENDS

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| Symbol | Description | Date | Appr. | Symbol | Description | Date | Appr. |
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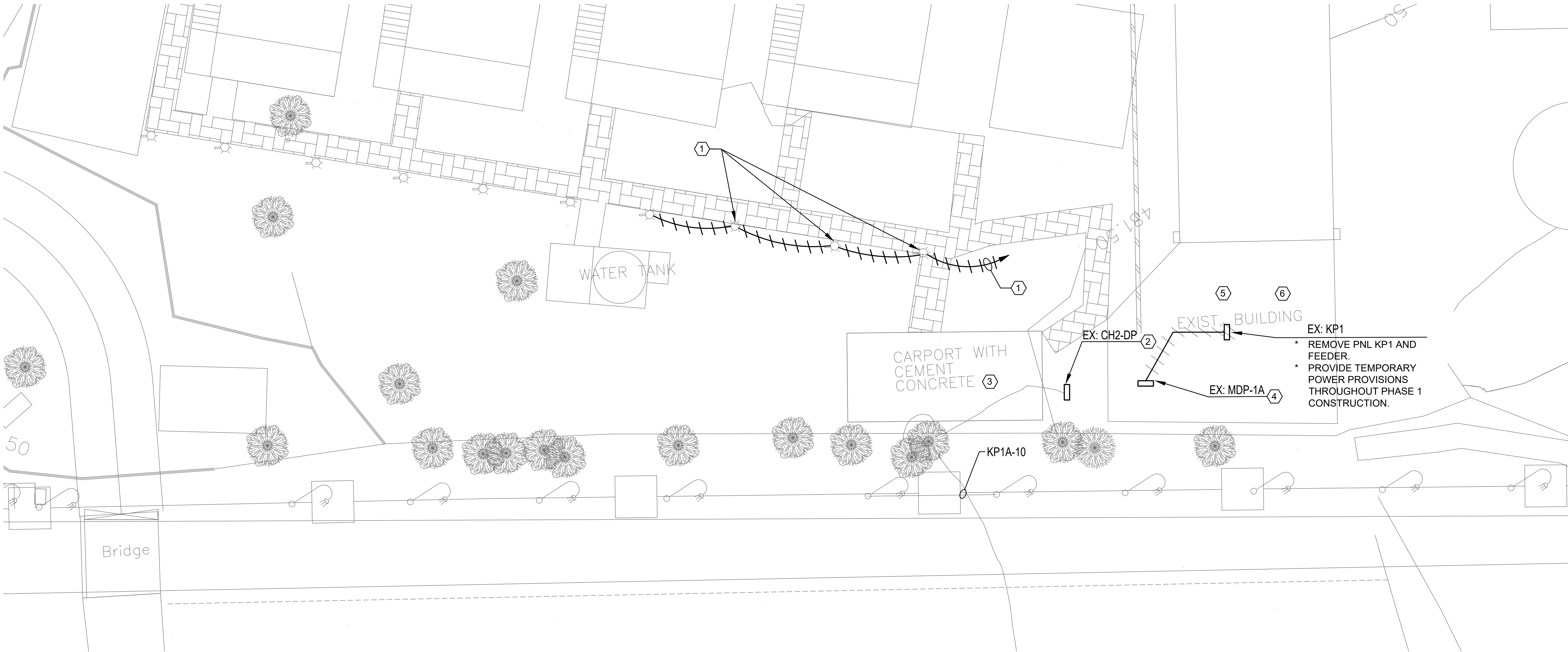
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|---------------------------------|-------------------|--|
| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: KITCHEN DEMOLITION PHASE 1 AND PHASE 2 |
| Submitted by: Perez APC | Plot Scale: VARES | Plot Date: |
| Issued Date: 08/01/2021 | Contract No.: | Contract No.: |
| Deliverable Date: 08/16/2022 | Contract No.: | Contract No.: |



| | |
|--|---|
| USAID SOUTH SUDAN, ENGINEERING SUPPORT PROGRAM ISSUE FOR CONSTRUCTION REV. 2 | DEMOLITION PLAN - KITCHEN (PHASE 1 AND PHASE 2) |
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|------------------------------|
| Sheet Reference Number |
| ED1.02 |

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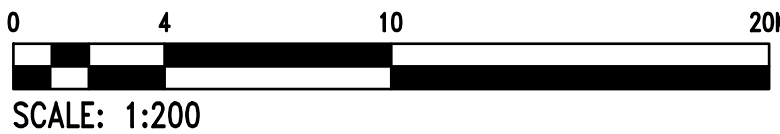


PHASE I DEMOLITON KEYED NOTES

- 1 DISCONNECT AND REMOVE:
 - BOLLARD LIGHT
 - CONCRETE PEDESTAL CONDUCTOR AND CONDUIT BACK TO THE UPSTREAM BOLLARD.
 - REMOVE HOMERUN BACK TO POWER SOURCE
- 2 DISCONNECT AND REMOVE INCOMING FEEDER AND ALL OUTGOING FEEDERS, CONDUIT CABLES, PANELBOARDS, BACK BOARD, AND GROUND.
 - WORK FOR THIS ITEM SHOWN IN THE TEMPORARY POWER PLANT DOCUMENTS
- 3 DISCONNECT AND REMOVE ALL LIGHT FIXTURES, CONDUITS, WIRE, CABLES, AND BOXES FROM EXISTING CARPORT TO BE DEMOLISHED.
 - CIRCUIT FED FROM PANEL KP IN KITCHEN

PHASE II DEMOLITON KEYED NOTES

- 4 DISCONNECT AND REMOVE INCOMING FEEDER AND ALL OUTGOING FEEDER, CONDUIT CABLES, PANELBOARDS, BACK BOARD, AND GROUND.
 - WORK FOR THIS ITEM SHOWN IN THE TEMPORARY POWER PLANT DOCUMENTS
 - PROVIDE TEMPORARY POWER PROVISIONS THROUGHOUT PHASE 1 CONSTRUCTION. SEE SHEET E4.01, SHEET NOTE 8 AND TEMPORARY POWER PLANT DOCUMENTS SHEET E9.01 KEYNOTE 5 AND ED9.02, KEYNOTES 2 & 3.
- 5 DISCONNECT ALL WIRING, CABLES, LIGHTS, CONDUIT, PANELBOARDS, RECEPTACLE, SWITCHES, BOXES FROM DEMOLISHED KITCHEN.
- 6 DISCONNECT ALL COMMUNICATIONS, TELEPHONE, DATA, CABLES, CONDUITS, OUTLET BOXES, EQUIPMENT, AND SATELLITE DISHES FROM DEMOLISHED KITCHEN.



NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

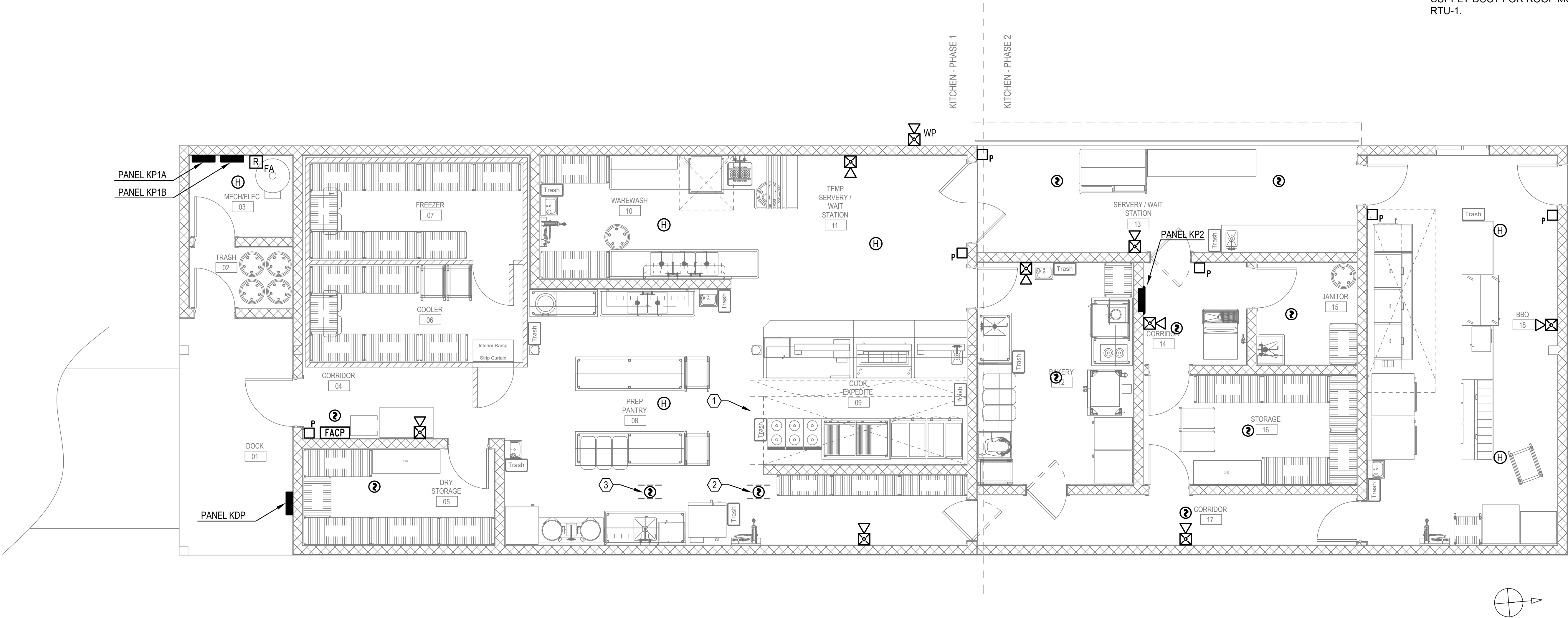
KEYED NOTES

- 1

RANGE HOOD SUPPRESSION SYSTEM, THE FOLLOWING ARE REQUIRED:
 - * ALL ELECTRICAL POWER TO BE SHUNT TRIP
 - * RANGE HOOD SUPPLY FAN IS TO BE SHUTDOWN
 - * RANGE HOOD EXHAUST FAN IS TO BE TURNED ON.
- 2

INSTALL DUCT SMOKE DETECTOR IN RETURN DUCT FOR ROOF MOUNTED RTU-1.
- 3

INSTALL DUCT SMOKE DETECTOR IN SUPPLY DUCT FOR ROOF MOUNTED RTU-1.



| Symbol | Description | Date | Appr. / Symbol | Description | Date | Appr. |
|--------|-------------|------|----------------|-------------|------|-------|
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| Designed by: KLH | Drawn by: EWH | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: KLH | Drwg. Code: | File Name: KITCHEN FIRE ALARM FLOOR PLAN |
| Submitted by: Perez APC | Plot Scale: VARIES | Contract No.: 4470CA15-0001 / 726622P0003 |
| Issued Date: 08/01/2021 | Deliverable Date: 08/16/2022 | |

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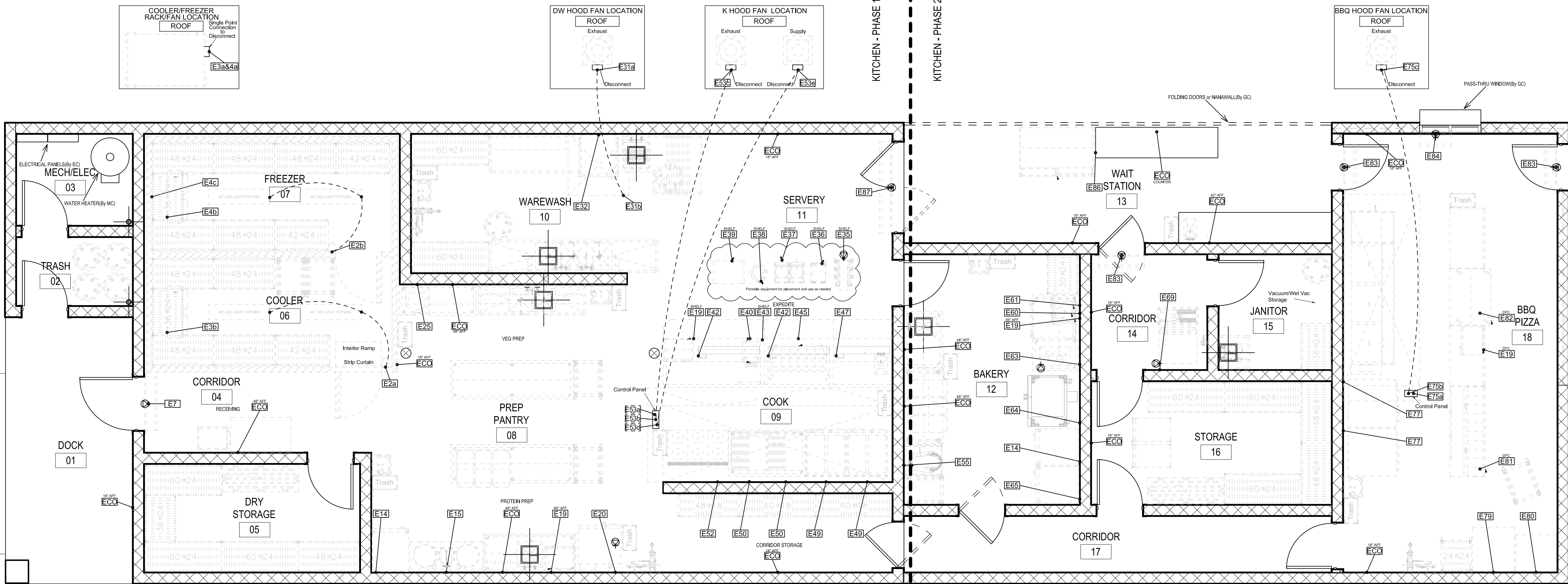
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KITCHEN FIRE ALARM FLOOR PLAN

Sheet
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Number
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| ELECTRICAL CONNECTION SCHEDULE | | | | | | | | | | | | |
|--------------------------------|--|-------|--------|---------|-------|--------|------------|-----------|---|--|-------|--|
| Item | Description | Qty | E-Item | Voltage | Cycle | Ph | Load | Placement | Connection | Remarks | Notes | |
| 2 | Walk-In Cooler/Freezer | 1 lot | E2a | 230 | 50 | 1 | 20A Svc | 102" AFF | HW | Connect to J-Box then thru wall switch | ① | |
| 3 | Refrigeration-Med Temp See FS21 for details | 1 lot | E2b | 230 | 50 | 1 | 20A Svc | 102" AFF | HW | Connect to J-Box then thru wall switch | ① | |
| | | | E3a | 230 | 50 | 1 | 39.3 A | Roof | HW | Single point connection with E4a | ① | |
| | | | E3b | 230 | 50 | 1 | 1.0 A | 86" AFF | HW | | ① | |
| 4 | Refrigeration-Low Temp Refer to plan sheet FS21 for details | 1 lot | E4a | 230 | 50 | 1 | 14.6A | 86" AFF | HW | Single point connection with E3a | ① | |
| | | | E4b | 230 | 50 | 1 | 20A Svc | 72" AFF | Verify | Connection on wall inside freezer | ① | |
| | | | E4c | 230 | 50 | 1 | 1.0 A | 72" AFF | Verify | Provide electrical connection above door | ① ③ | |
| 7 | Air Curtain-42" | 1 ea | E7 | 230 | 50 | 1 | 1 A | Verify | HW | Verify connection type and provide on wall | ① | |
| 14 | Refrigerator-1 Section | 2 ea | E14 | 230 | 50 | 1 | .65 A | 48" AFF | Verify | Verify connection type and provide on wall | ① | |
| 15 | Kettle-Double, Tilting | 1 ea | E15 | 380-415 | 50 | 3 | 24kw 33.4A | 18" AFF | HW | | ① | |
| 19 | Microwave Oven | 4 ea | E19 | 230 | 50 | 1 | 16 A | See Plan | Verify | Verify connection type and provide at eq location | ① | |
| 20 | Combi Oven | 1 ea | E20 | Verify | 50 | Verify | Verify | 48" AFF | HW | Verify connection type and provide on wall | ① ④ | |
| 25 | Potato Peeler | 1 ea | E25 | 230 | 50 | 1 | .75 kw | 48" AFF | Verify | Verify connection type and provide on wall | ① | |
| 31 | Hood System-Condensate(Warewash) See sheets FS9 thru FS20 for details | 1 lot | E31a | 230 | 50 | 1 | 3.8 FLA | Roof | HW | Connect to disconnect on fan | ① | |
| | | | E31b | 230 | 50 | 1 | 84" AFF | HW | Connect to switch on face of hood from E31a | ① | | |
| | | | E32 | 380-415 | 50 | 3 | 14.1kw | 18" AFF | HW | | ① ④ | |
| 35 | Warewasher | 1 lot | E35 | 230 | 50 | 1 | 15A Svc | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 36 | Heat Lamp | 1 lot | E36 | 230 | 50 | 1 | 1890w | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 37 | Multi Contact Grill | 1 lot | E37 | 230 | 50 | 1 | 3.2 kw | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 38 | Waffle Iron | 1 lot | E38 | 230 | 50 | 1 | 360 w | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 39 | Salamander Oven | 1 lot | E39 | Verify | 50 | 1 | Verify | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 40 | Refrigerator-Undercounter | 1 ea | E40 | 230 | 50 | 1 | 495 w | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 42 | Heat Strip-4'-0" | 2 ea | E42 | 230-240 | 50 | 1 | 800w 3.3A | Chef Cntr | HW | | ① | |
| 43 | Conveyor Toaster | 1 ea | E43 | 230 | 50 | 1 | 9.2 A | Chef Cntr | Verify | Verify connection type and provide on Chef Counter | ① | |
| 45 | Sandwich Prep Refrigerator-12 pan | 1 ea | E45 | 230 | 50 | 1 | 2.3 A | Chef Cntr | HW | | ① | |
| 47 | Heat Strip-3'-6" | 1 ea | E47 | 230-240 | 50 | 1 | 675w 2.8A | Chef Cntr | HW | | ① | |
| 49 | Deep Fryer | 2 ea | E49 | 380-415 | 50 | 3 | 36 kw | 18" AFF | HW | | ① ② ④ | |
| 50 | Giddle | 2 ea | E50 | 400 | 50 | 3 | 9 kw | 18" AFF | HW | | ① ② ④ | |
| 52 | Range-6 burners, Oven | 1 ea | E52 | 400 | 50 | 3 | 20.6kw | 18" AFF | HW | | ① ② ④ | |
| 53 | Hood System (Main Cookline) Refer to plan sheets FS9 thru FS20 for details | 1 lot | E53a | 230 | 50 | 1 | 15A Svc | 84" AFF | HW | Connect to control panel on hood | ① | |
| | | | E53b | 230 | 50 | 1 | 21.4 MCA | 84" AFF | HW | Connect to control panel on hood | ① | |
| | | | E53c | | | | Roof | HW | Interconnect from control panel on hood | ① | | |
| | | | E53d | 230 | 50 | 1 | 16.6 MCA | 84" AFF | HW | Connect to control panel on hood | ① | |
| | | | E53e | | | | Roof | HW | Interconnect from control panel on hood | ① | | |
| 55 | Mixer-Planetary, 20qt | 1 ea | E55 | 230 | 50 | 1 | 5 A | 48" AFF | HW | | ① | |
| 60 | Gelato Machine | 1 ea | E60 | 230 | 50 | 1 | 600 w | 48" AFF | Verify | Verify connection type and provide on wall | ① | |
| 61 | Holding/Proofing Cabinet-Undrcounter | 1 ea | E61 | 230 | 50 | 1 | 2000 w | 18" AFF | HW | | ① | |
| 63 | Hotplate-2 Burner | 1 ea | E63 | 230 | 50 | 1 | 4 kw | 18" AFF | HW | | ① | |
| 64 | Convection Oven | 1 ea | E64 | 230 | 50 | 1 | 52 A | 48" AFF | HW | | ① | |
| 65 | Freezer-1 Section | 1 ea | E65 | 230 | 50 | 1 | .65 A | 48" AFF | Verify | Verify connection type and provide on wall | ① | |
| 69 | Ice Machine (Head) | 1 ea | E69 | 230 | 50 | 1 | 11.1 A | 70" AFF | HW | | ① | |
| 75 | Hood System (BBQ) Lights/Controls See plan sheets FS9 thru FS20 for details | 1 lot | E75a | 230 | 50 | 1 | 20A Svc | 84" AFF | HW | Connect to control panel on hood | ① | |
| | | | E75b | 230 | 50 | 1 | 41.2 MCA | 84" AFF | HW | Connect to control panel on hood | ① | |
| | | | E75c | | | | Roof | HW | Interconnect from control panel on hood | ① | | |
| 77 | Pizza Oven | 2 ea | E77 | 400 | 50 | 3 | 20a 8.8kw | 48" AFF | HW | | ① ④ | |
| 79 | Refrigerator/Freezer (Residential) | 1 ea | E79 | 230 | 50 | 1 | 1 A | 18" AFF | Verify | Verify connection type and provide on wall | ① | |
| 80 | Freezer-Upright (Residential) | 1 ea | E80 | 230 | 50 | 1 | 1 A | 18" AFF | Verify | Verify connection type and provide on wall | ① | |
| 81 | Pizza Prep-Refrigerated | 1 ea | E81 | 230 | 50 | 1 | 300 w | DFC | Verify | | ① | |
| 82 | Worktop-Refrigerated, Overshelf | 1 ea | E82 | 230 | 50 | 1 | 0.8 A | DFC | HW | | ① | |
| 83 | Air Curtain-36" | 4 ea | E83 | 230 | 50 | 1 | 1 A | Verify | HW | Provide electrical connection above door | ① ③ | |
| 84 | Air Curtain-25" | 1 ea | E84 | 230 | 50 | 1 | 1 A | Verify | HW | Provide electrical connection above window | ① ③ | |
| 86 | Pastry Case-Dual Temp (Cold & Dry) | 1 ea | E86 | 230 | 50 | 1 | 1.8 A | 18" AFF | HW | Provide elec connection on adjacent wall | ① | |
| 87 | Air Curtain-72" | 1 ea | E87 | 230 | 50 | 1 | 1.3 A | Verify | HW | Provide electrical connection above door | ① | |
| CO | Convenience Outlet | 16ea | ECO | 230 | 50 | 1 | 15A Svc | See Plan | C/D (Verify) | Verify connection type and provide on wall | ① | |

ELECTRICAL NOTES:

- EC to interconnect to factory provided J-Box/electrical control panel/breaker box inside appliance
- EC to provide and install shunt trip breakers where applicable by code
- EC to mount appliance above door/window, install plunger switch at appropriate location then connect to appliance.
- Vendor and/or owner to confirm/provide any required MEP's and confirm quantities on existing, and/or vendor supplied equipment
- EC can choose to provide and install cord, plug and receptacle to be used as disconnect in lieu of disconnect box or hard wire
- EC to provide and install GFCI type outlets where applicable by code
- EC to provide convenience receptacles throughout kitchen as shown
- EC to provide and install electrical disconnect box or allowable method of disconnect adjacent to appliance if not factory provided(if required)
- On all equipment with cord & plug provided, EC to match receptacle to plug type or plug type to receptacle in field and install accordingly

GENERAL NOTES:

- GC to make all core drill holes through concrete walls or floors and to provide thimbles as required by other trades
- Consult equipment specification sheets for any required installation data and instructions not specified herein

ABBREVIATIONS:

- A-Amps
AFF-Above Finished Floor
Chef Cntr-Chef's Counter
CO-Convenience Outlet
CP-Cord & Plug
DFC-Drop From Ceiling
EC-Electrical Contractor
FLA-Full Load Amperage
GC-General Contractor
GFCI-Ground Fault Circuit Interrupter
HW-Hard Wired
J-Box-Junction Box
KW-Kilowatts
LRA-Lock Rotor Amps
MCA-Minimum Circuit Amps
MEP-Mechanical, Electrical, Plumbing
NEMA-National Electrical Manufacturers Association
OC-On Center
SFF-Slab From Floor
SO-Single Outlet
SS-Stainless Steel
Svc-Service
W-Watts

1 FS2 KITCHEN ELECTRICAL PLAN
1/4" = 1'-0"

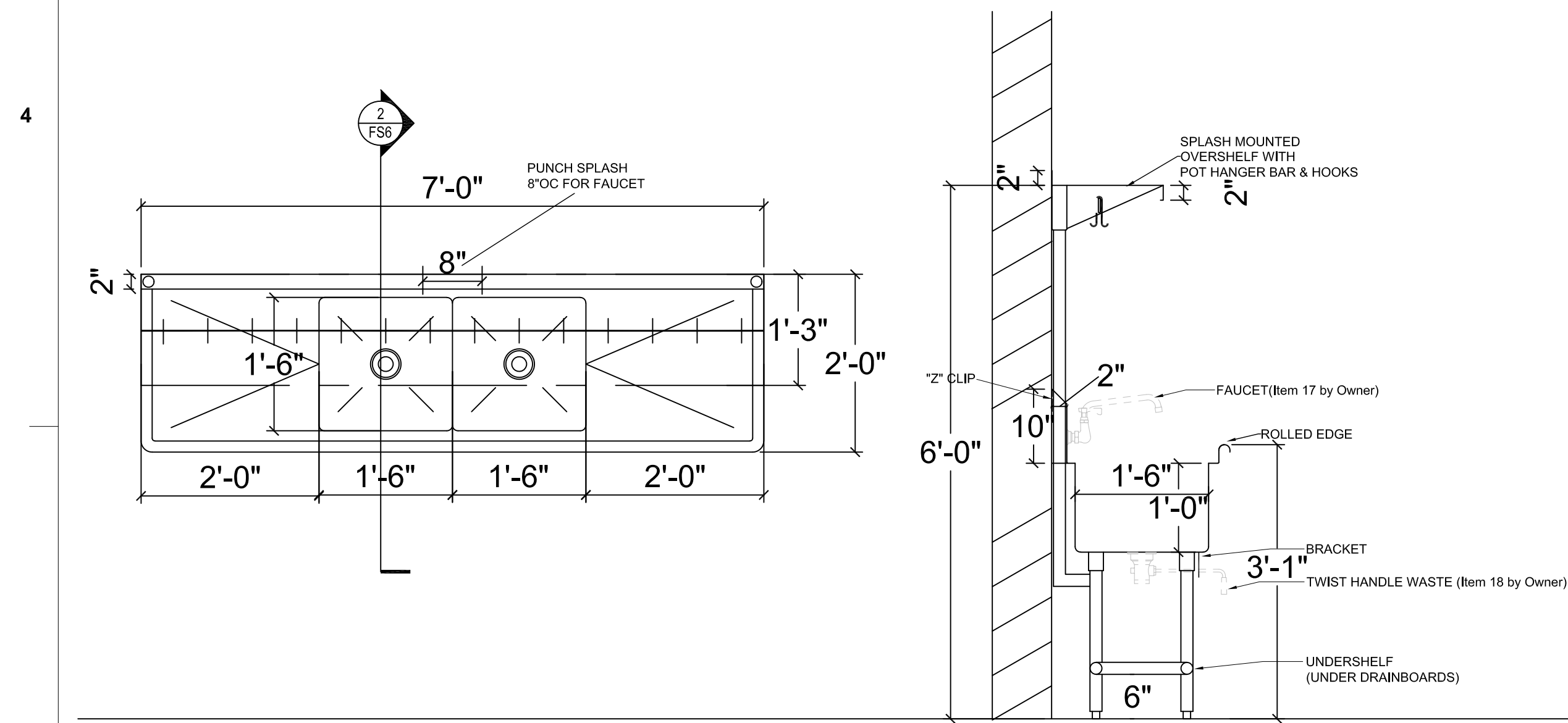


USAID ENGINEERING SUPPORT PROGRAM
(ESP), SOUTH SUDAN
ISSUE FOR CONSTRUCTION
KITCHEN FLOOR PLANS
ELECTRICAL PLAN

Sheet
Reference
Number

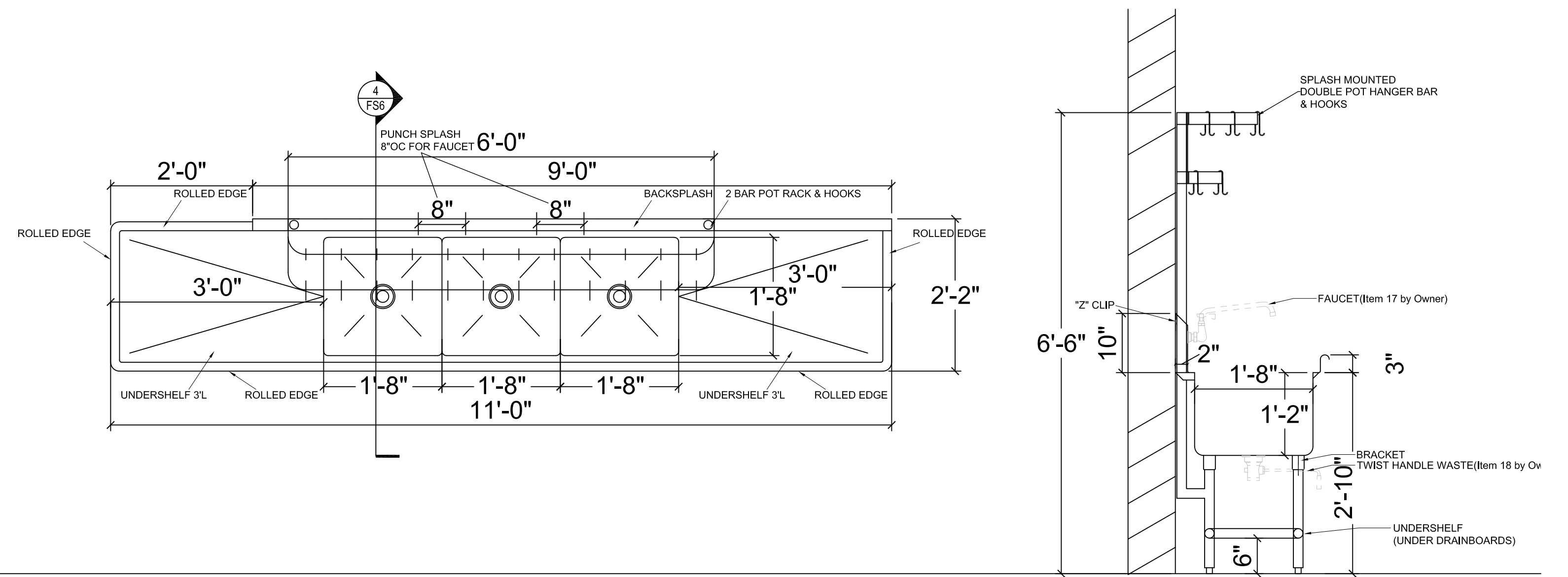
FS2

CLIN 0002



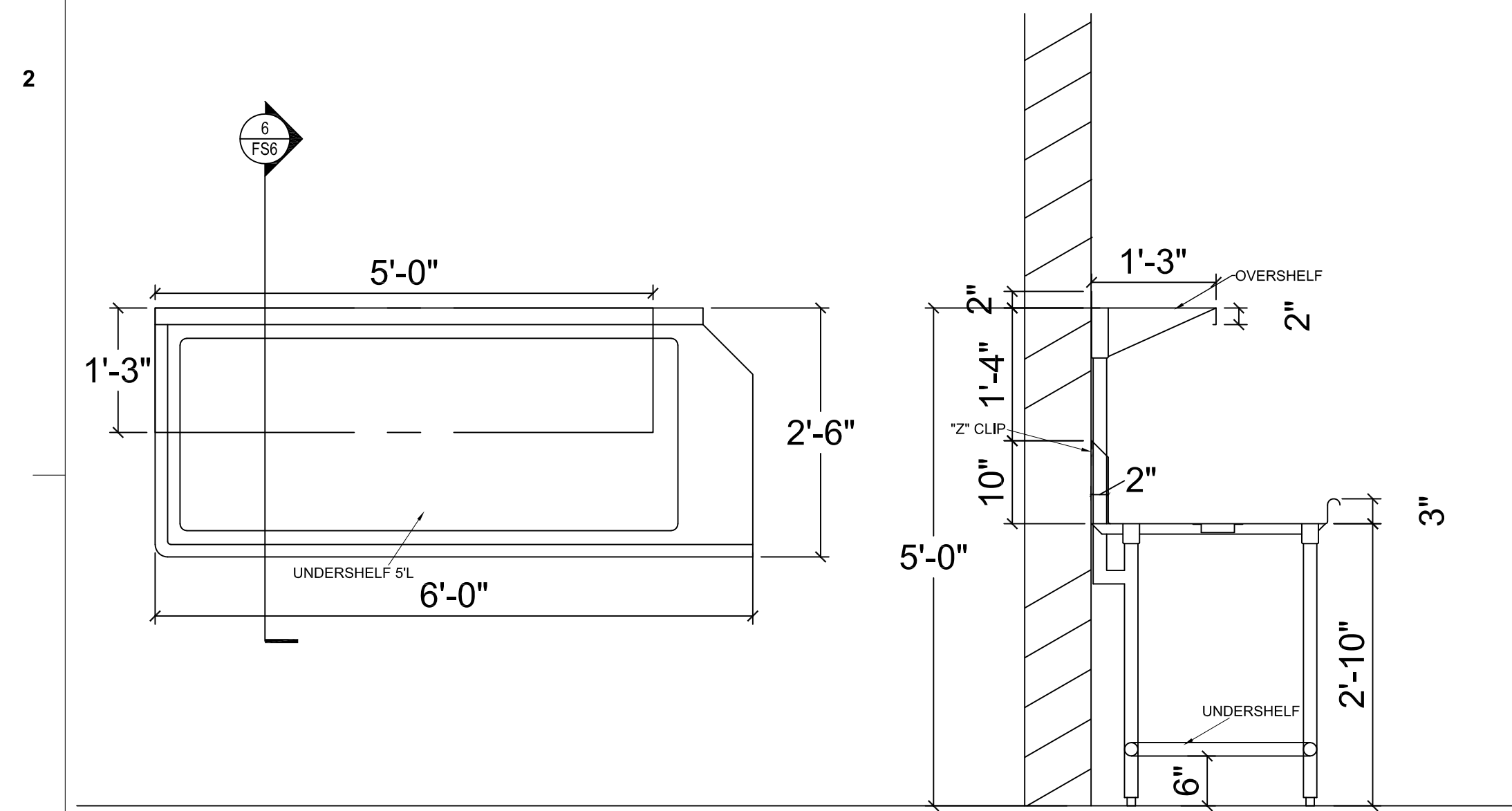
1 PREP SINK-2 COMPARTMENT (Item 27)
FS6 3/4" = 1'-0"

2 PREP SINK-2 COMPARTMENT (Item 27)
FS6 3/4" = 1'-0"



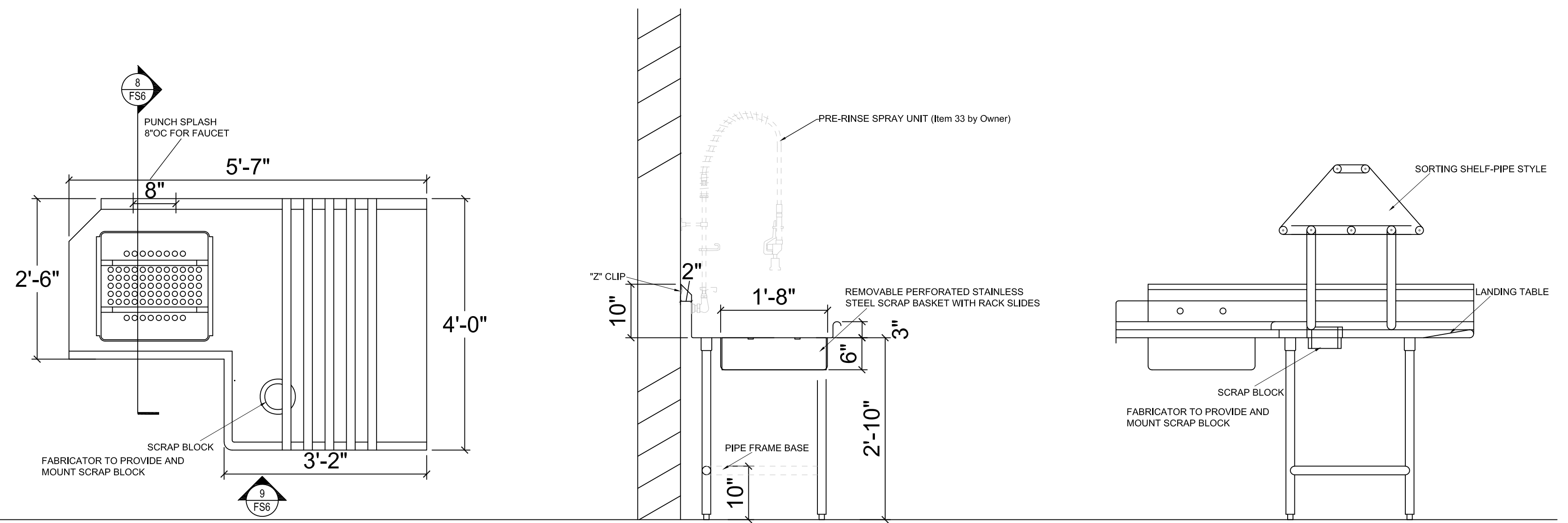
| | |
|----------|---|
| 3 FS6 | SCULLERY SINK-3 COMPARTMENT (Item 28) 3/4" = 1'-0" |
|----------|---|

4 SCULLERY SINK-3 COMPARTMENT (Item 28)
FS6 3/4" = 1'-0"



5 CLEAN DISHTABLE (Item 30)
FS6 3/4" = 1'-0"

| | |
|----------|---|
| 6 FS6 | CLEAN DISHTABLE (Item 30) 3/4" = 1'-0" |
|----------|---|



7 SOILED DISHTABLE (Item 34)
FS6 3/4" = 1'-0"

8 SOILED DISHTABLE (Item 34)
FS6 3/4" = 1'-0"

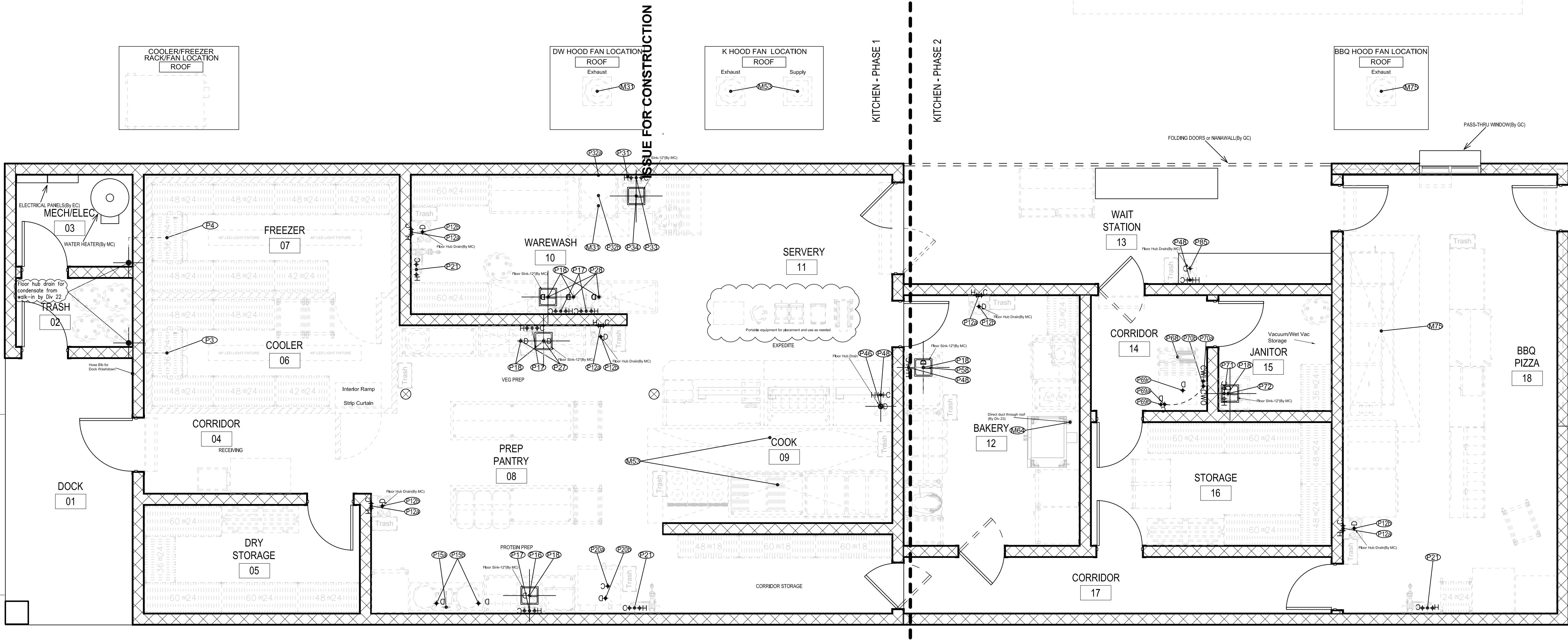
9 SOILED DISHTABLE (Item 34)
FS6 3/4" = 1'-0"

1-9 EQUIPMENT DETAILS
FS6 3/4" = 1'-0"



NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

TUKUL



| MECHANICAL CONNECTION SCHEDULE | | | | | | | | | | |
|--------------------------------|-----------------------------------|-------|----------------------------|----------------------------------|----------------------|----------------|---------------------|--------|--|--------------|
| Item | Description | Qty | P-Item | Cold Water (in) | Cold Water Placement | Hot Water (in) | Hot Water Placement | Waste | Remarks | Notes |
| 3 | Refrigeration-Medium Temp | 1 ea | (P3) | | | | | 1" | Waste from coil to Open Hub | ⑤ ⑧ ⑧ |
| 4 | Refrigeration-Low Temp | 1 ea | (P4) | | | | | 1" | Waste from coil to Open Hub | ⑤ ⑧ |
| 12 | Hand Sink-Faucet | 5 ea | (P12a) (P12b) | 1/2 | 12" AFF | 1/2 | 12" AFF | 1-1/2" | Waste to Floor Hub Drain | ① ② ③ |
| 15 | Kettle-Faucet, Stand | 1 ea | (P15a) (P15b) | 1/2 | 12" AFF | 1/2 | 12" AFF | 1-1/4" | Waste to Floor Sink, 2 connections | ⑤ ⑧ |
| 16 | Work Table-1 Sink | 1 ea | (P16) | | | | | 1-1/2" | Waste to Floor Sink | ⑤ ⑧ |
| 17 | Faucet-Splash Mount, 10" Spout | 4 ea | (P17) | 1/2 | 12" AFF | 1/2 | 12" AFF | | | ① ② |
| 18 | Waste Drain-Twist | 8 ea | (P18) | | | | | 1-1/2" | Waste to Floor Sink | ② ⑤ ⑧ |
| 20 | Combi Oven | 1 ea | (P20a) (P20b) | 3/4 | 12" AFF | | | 2" | Verify single point water connection Waste to Floor Sink | ① ⑨ ⑤ ⑧ ⑨ |
| 21 | Washdown Faucet/Hose Reel | 3 ea | (P21) | 1/2 | 42" AFF | 1/2 | 42" AFF | | Stub precisely 8" OC and level | ① ② |
| 27 | 2 Comp Sink, Pot Rack-Shelf | 1 ea | (P27) | | | | | 1-1/2" | Waste to Floor Sink, 2 connections | ⑤ ⑧ |
| 28 | 3 Comp Sink, Pot Rack | 1 ea | (P28) | | | | | 1-1/2" | Waste to Floor Sink, 3 connections | ⑤ ⑧ |
| 31 | Hood System-Condensate(Warewash) | 1 lot | (M31) (P31) | Refer to Plan Sheets for Details | | | | 3/4" | Installation of ducting & hood system Hood Condensate Waste to Floor Sink | ⑥ ⑤ ⑧ |
| 32 | Warewasher | 1 ea | (P32a) (P32b) | | | 1/2 | 12" AFF | 2" | Waste to Floor Sink | ⑨ ⑤ ⑧ ⑨ |
| 33 | Pre-Rinse Faucet | 1 ea | (P33) | 1/2 | 12" AFF | 1/2 | 12" AFF | | | ① ② |
| 34 | Soiled Dishtable-Pre-Rinse Sink | 1 ea | (P34) | | | | | 1-1/2" | Waste to Floor Sink | ⑤ ⑧ |
| 46 | Chef Counter-Module 3, Sink Drain | 1 ea | (P46) | | | | | 1-1/2" | Waste to Floor Hub Drain | ⑤ ⑧ |
| 48 | Faucet - Gooseneck Spout | 3 ea | (P48) | 1/2 | 12" AFF | 1/2 | 12" AFF | | | ① ② |
| 53 | Hood System(Cookline) | 1 lot | (M53) | Refer to Plan Sheets for Details | | | | 1-1/2" | Installation of ducting & hood system Waste to Floor Sink | ⑥ ⑦ ⑤ ⑧ |
| 58 | Work Table-SS, 1 Sink | 1 ea | (P58) | | | | | 1-1/2" | Waste to Floor Sink | ⑤ ⑧ |
| 64 | Convection Oven | 1 ea | (M64) (P64) | | | | | | M&L ducting system by Div 23 | ⑥ |
| 68 | Floor Trough | 1 ea | (P68) | | | | | 4" | Waste in Floor-Stub precisely-see cut sht | ⑤ ⑧ |
| 69 | Ice Machine (Head, Bin) | 1 ea | (P69a) (P69b) (P69c) | 3/8 | | | | 1/2" | In from Filter (P70b) (20-80 PSI) Waste to Floor Trough | ⑤ ⑧ ⑤ ⑧ |
| 70 | Water Filter (Ice) | 1 ea | (P70a) (P70b) | 1/2 | 54" AFF | | | 1" | In from Source-adapt to filter-3/8" | ① ④ |
| 71 | Service/Mop Faucet | 1 ea | (P71) | 1/2 | 12" AFF | 1/2 | 12" AFF | | Out to Ice Machine (P69a) | ① ② |
| 72 | Mop Sink | 1 ea | (P72) | | | | | 2" | Waste to Floor Sink | ⑤ ⑧ |
| 75 | Hood System (BBQ) | 1 lot | (M75) | Refer to Plan Sheets for Details | | | | | Installation of ducting & hood system | ⑥ |
| 85 | Hand Sink-Drop-In | 1 ea | (P85) | | | | | 1-1/2" | Waste to Floor Hub Drain | ⑤ ⑧ |

PLUMBING/MECHANICAL NOTES:

- PC to provide and install water shutoff valves then interconnect to appliance
- PC to mount faucets &/or waste drains and make connections to same
- PC to mount hand sink to wall according to code (top of sink at 34" AFF)
- PC to mount water filters on wall and interconnect to appliances
- PC to provide and attach applicable size style and type of pipe to drain nipple on unit
- MC to install ducting and vent pipes per code
- Only exhaust ducting included in specifications. Supply ducting to be provided and installed by Division 23.
- All open hub or floor sink waste connections to be directed to grease waste trap/vault
- Vendor and/or owner to confirm/provide any required MEP's and confirm quantities on existing and/or vendor supplied equipment

GENERAL NOTES:

GC to make all core drill holes through concrete walls or floors and to provide thimbles as required by other trades
Consult equipment specification sheets or existing equipment for any required installation data and instructions not specified herein

ABBREVIATIONS:

- AFF-Above Finished Floor
- GC-General Contractor
- H&C-Hot & Cold
- M&L-Material & Labor
- MC-Mechanical Contractor
- MEP-Mechanical,Electrical,Plumbing
- OC-On Center
- PC-Plumbing Contractor
- PSI-Pounds per Square Inch
- SS-Stainless Steel

1 FS3 KITCHEN MECHANICAL PLAN
1/4" = 1'-0"



USAID ENGINEERING SUPPORT PROGRAM (ESP), SOUTH SUDAN
ISSUE FOR CONSTRUCTION
KITCHEN FLOOR PLANS
MECHANICAL PLAN

Sheet Reference Number

FS3

CLIN 0002

[illegible]

| | | | | |
|--|---------------------------------|------------------------|--|-------------------|
| CMC | Reviewed by: CMC | Drwg. Code: USA/DIC | File Name: SM 3003/ALAD Engineering Support Program - South Sudan KITCHEN 3D | NOVEMBER 30, 2020 |
| Submitted by: CMC | Plot Date: 1/13/2021 2:00:10 PM | | Plot Scale: VARIES | |
| Issued Date: Deliverable Date: 03/16/2022 | 08/23/2021 | | Contract No: 402-20047-00001 / 7206262590003 | |

Perez

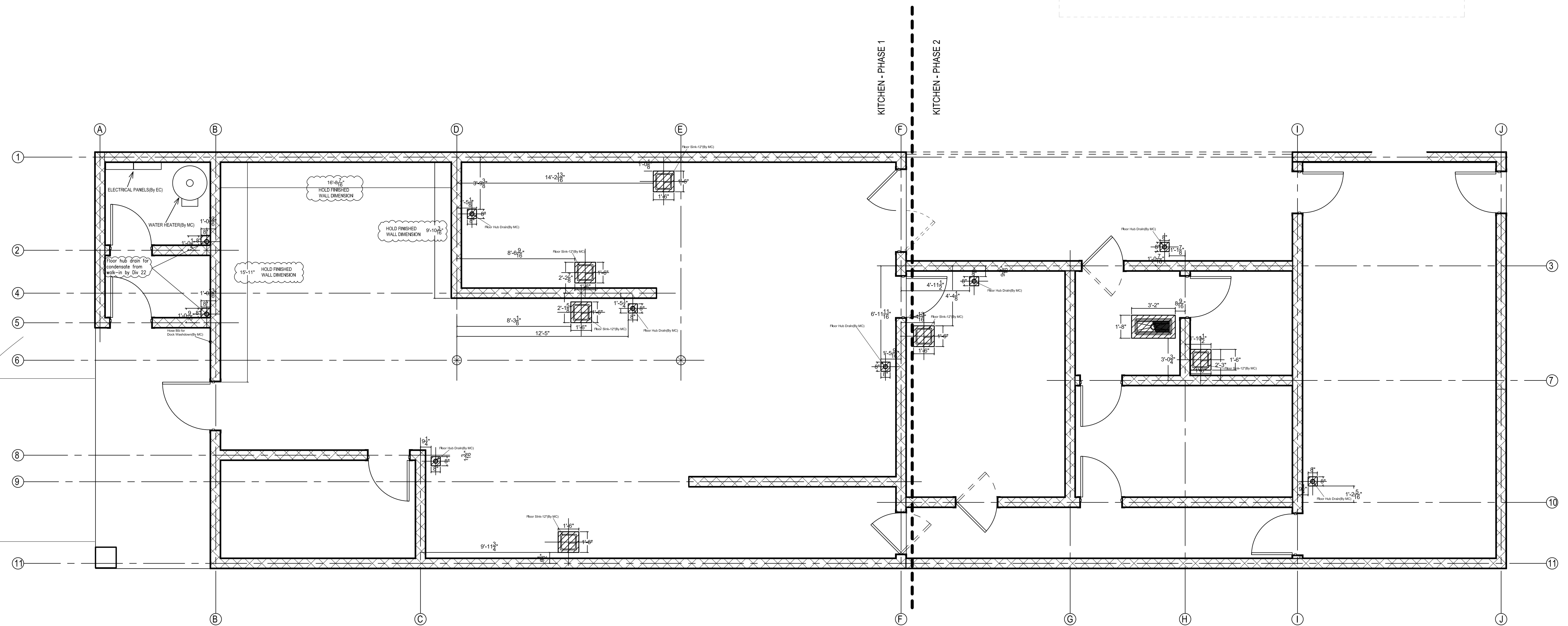
ISSUE FOR CONSTRUCTION

KITCHEN FLOOR PLANS
SLAB PENETRATION PLAN

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FS4

CLIN 0002

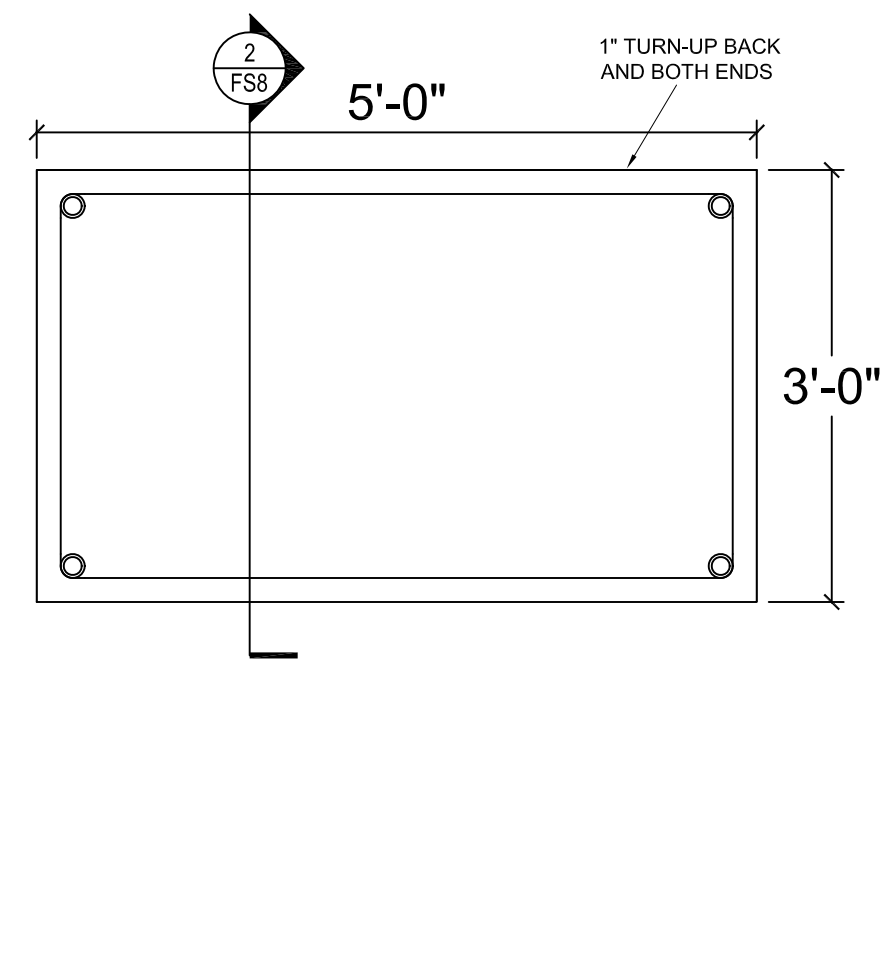


1 KITCHEN SLAB PENETRATION PLAN
FS4 1/4" = 1'-0"

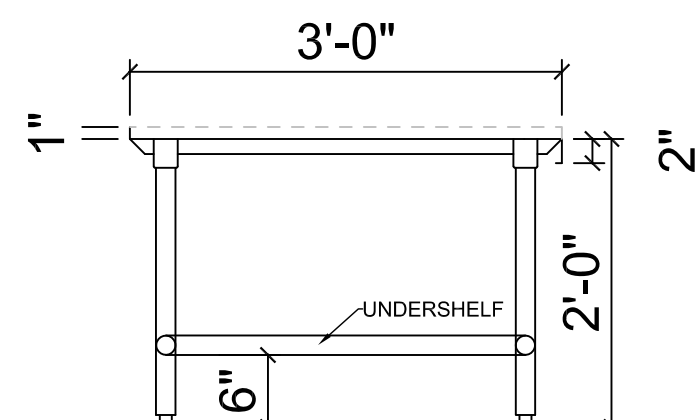


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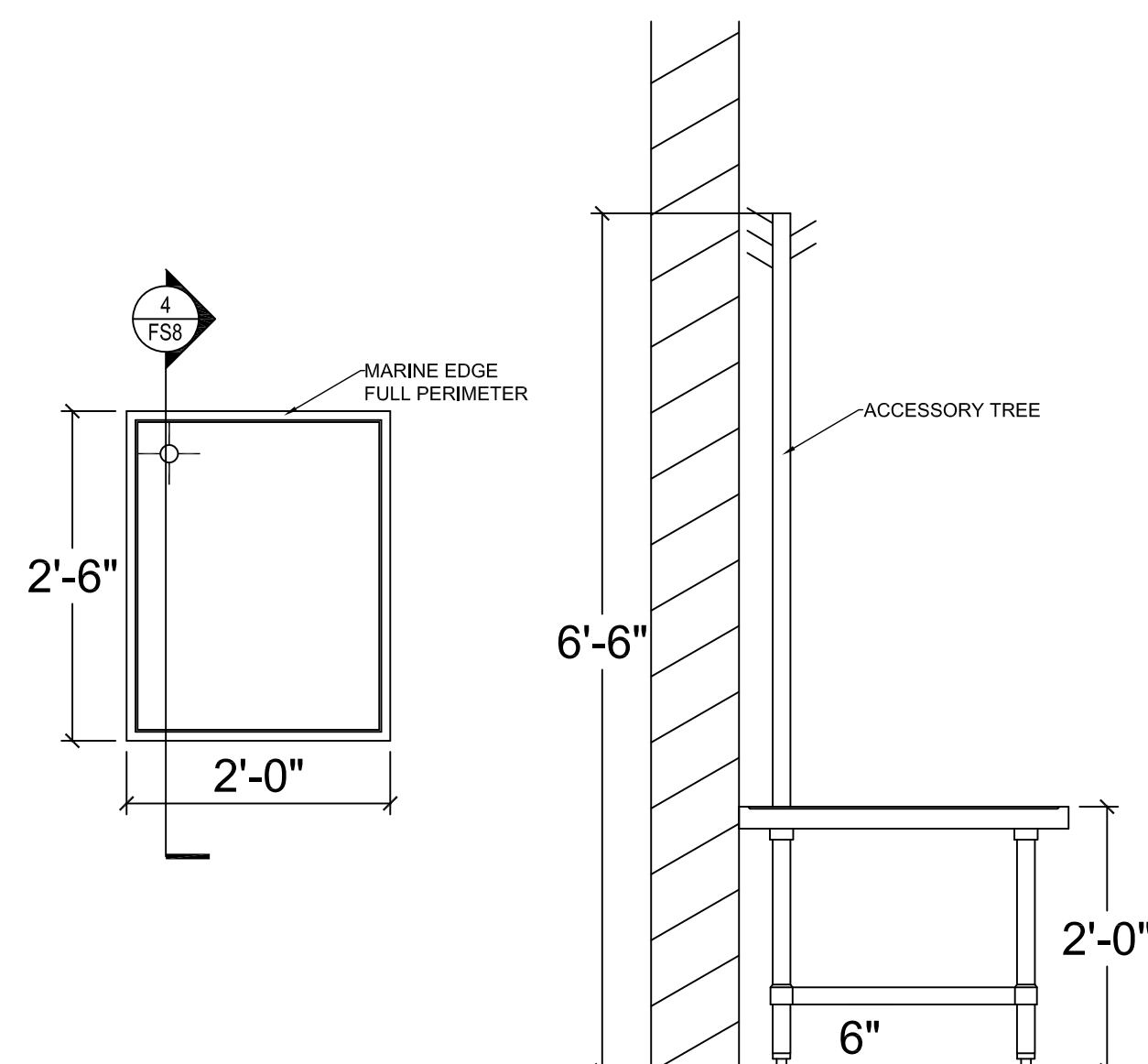
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|---------------------------------|-------------------------------------|--|
| Designed by: CMC | Drawn by: CMC | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: CMC | Drwg. Code: USAID/IFC | File Name: Support Engineering Support Program - South Sudan (ESP - SO SUDAN) |
| Submitted by: CMC | Plot Date: 11/13/2021 2:00:10 PM | Plot Scale: VARIES |
| Issued Date: 08/15/2022 | | Contract No: 4020A0434-50081 |
| Deliverable Date: 09/15/2022 | | Deliverable No: 7236663290003 |



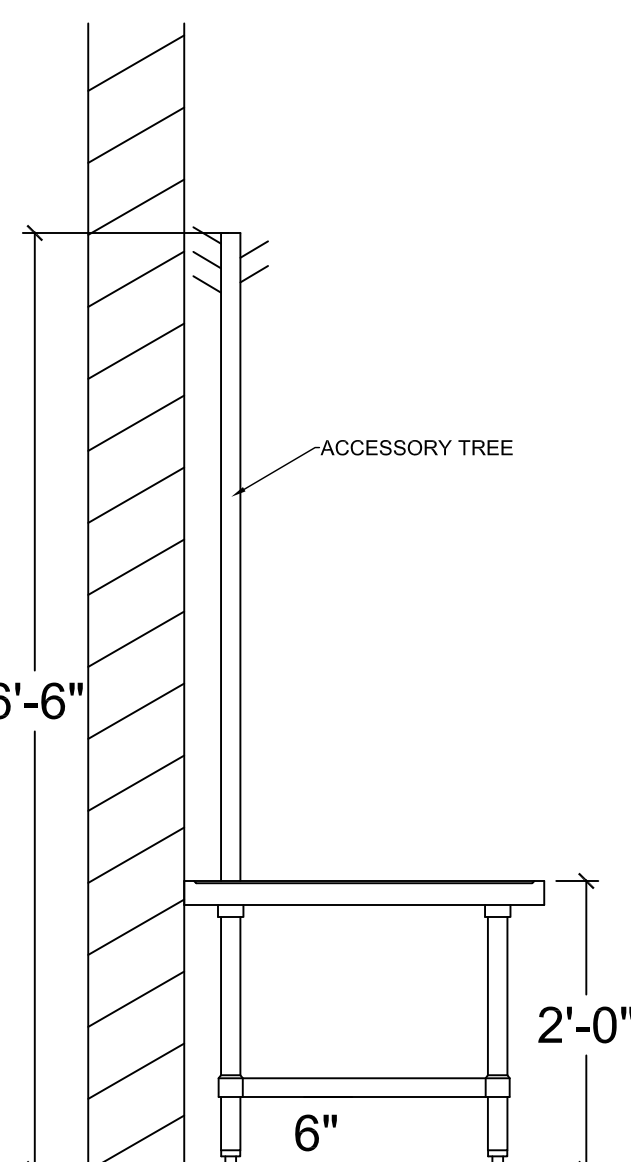
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| 1 | EQUIPMENT STAND (Item 51) |
| FS8 | 3/4" = 1'-0" |



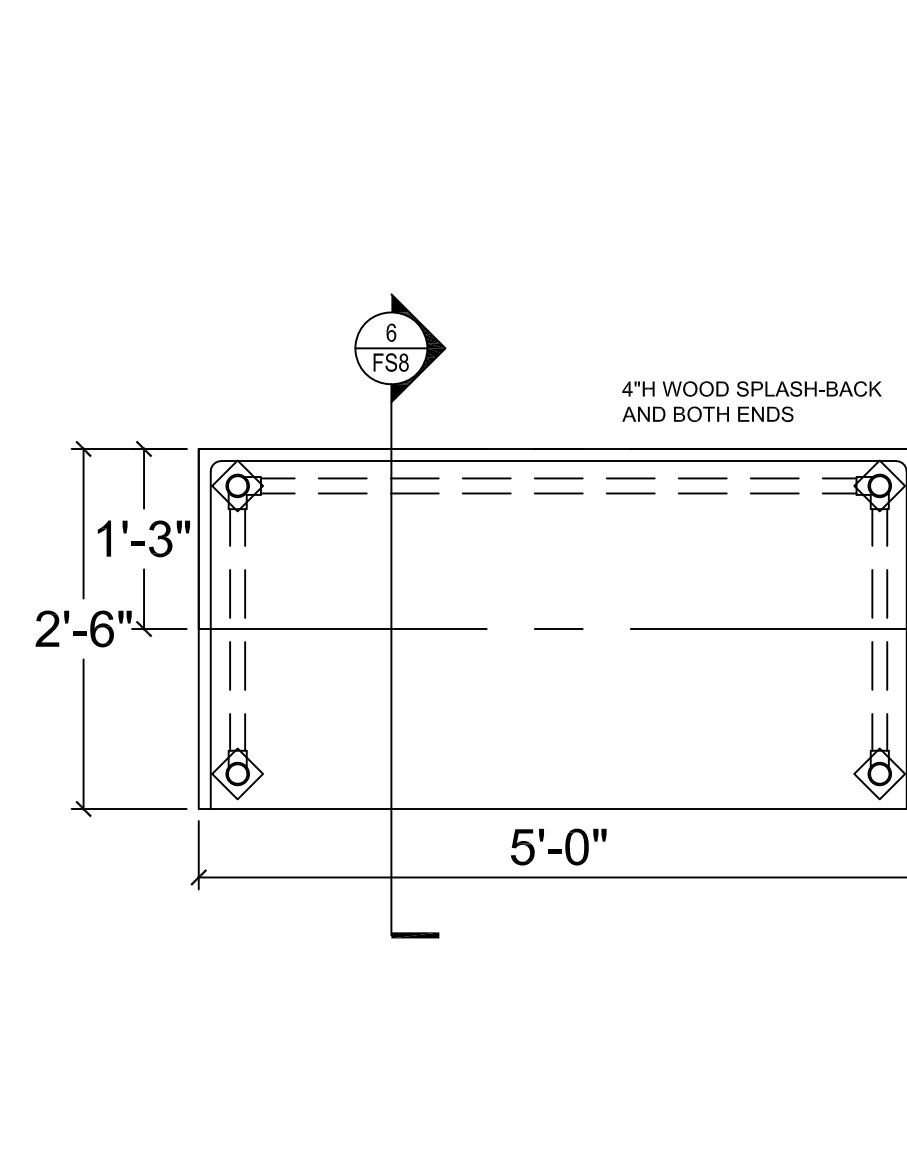
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| 2 | EQUIPMENT STAND (Item 51) |
| FS8 | 3/4" = 1'-0" |



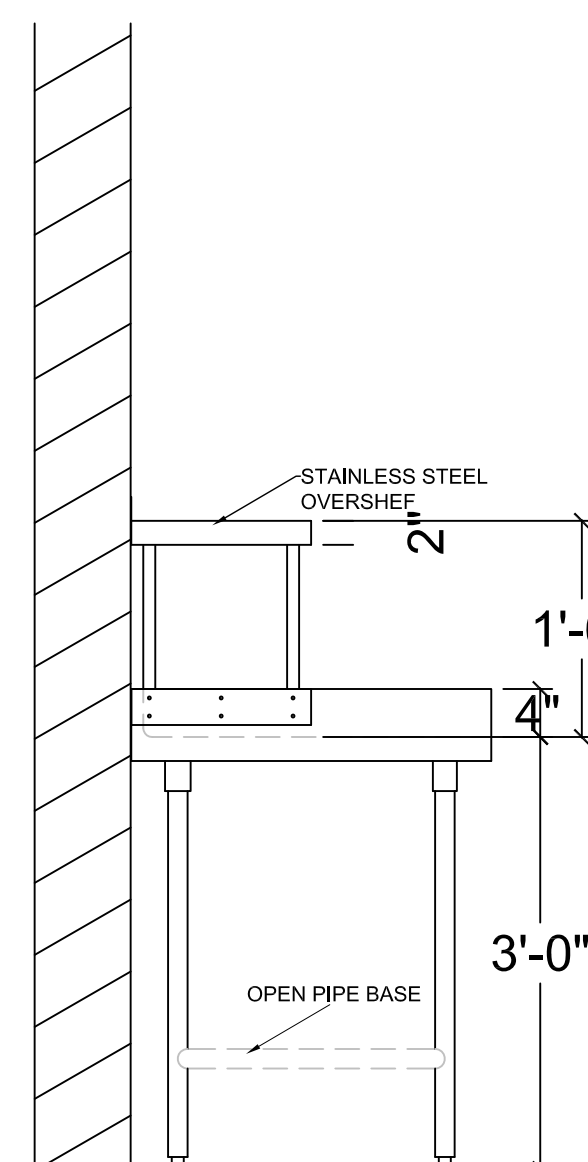
3 MIXER STAND (Item 56)
FS8 3/4" = 1'-0"



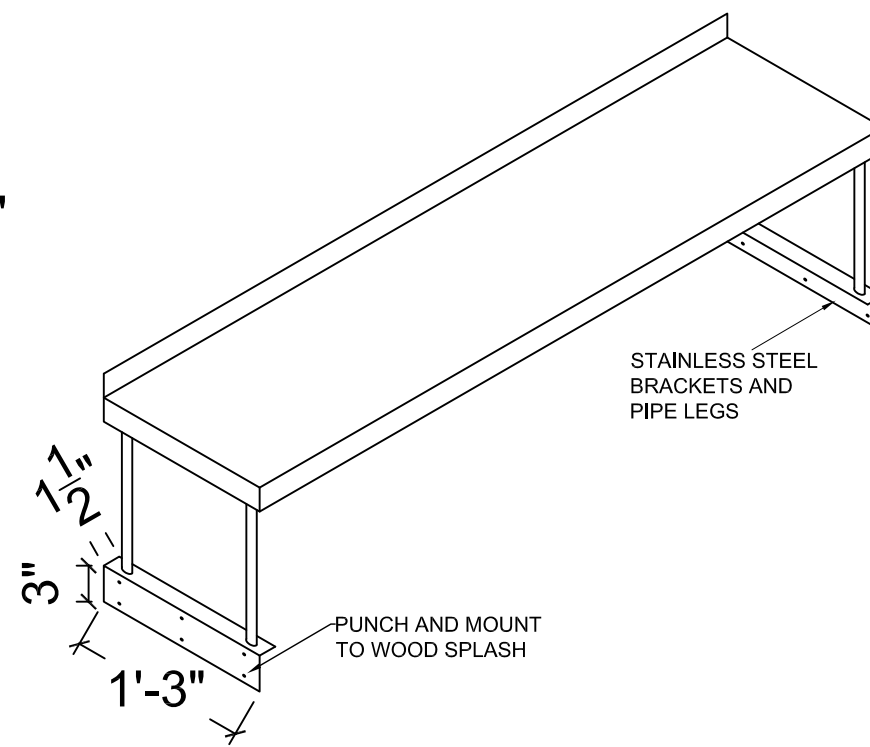
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| 4 | MIXER STAND (Item 56) |
| FS8 | 3/4" = 1'-0" |



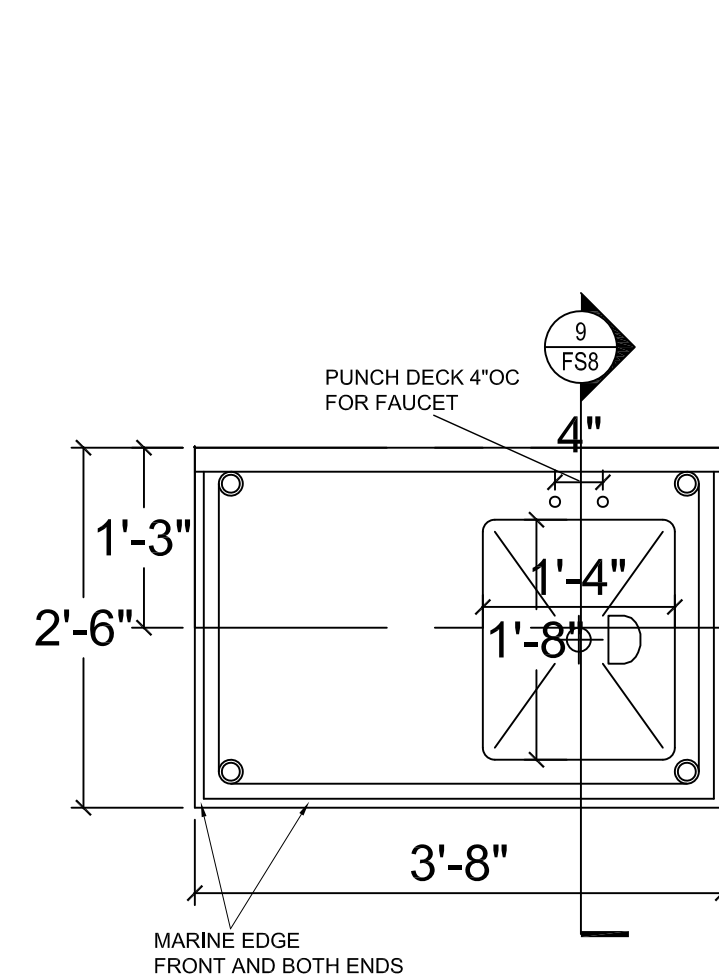
5 BAKER'S TABLE (Item 57)
FS8 3/4" = 1'-0"



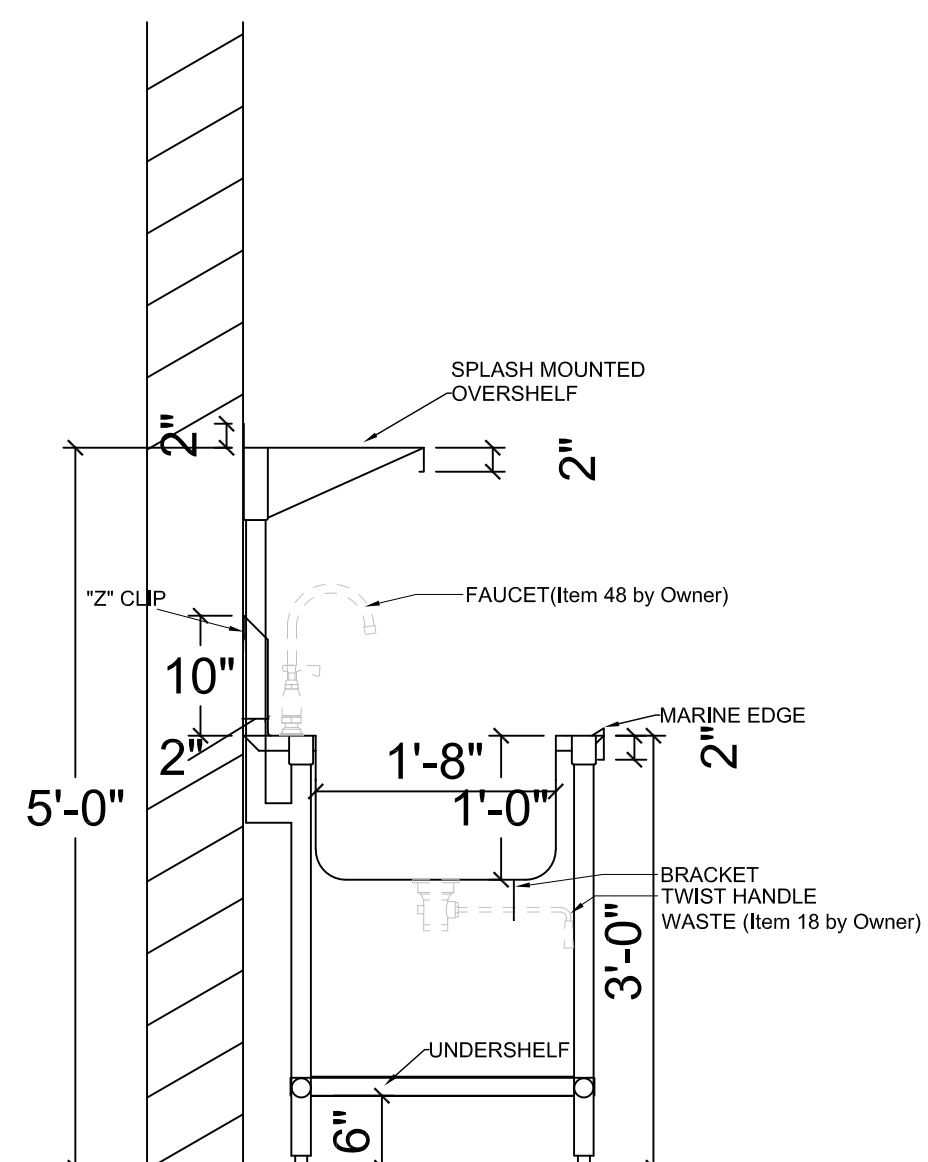
6 BAKER'S TABLE (Item 57)
FS8 $3/4" = 1'-0"$



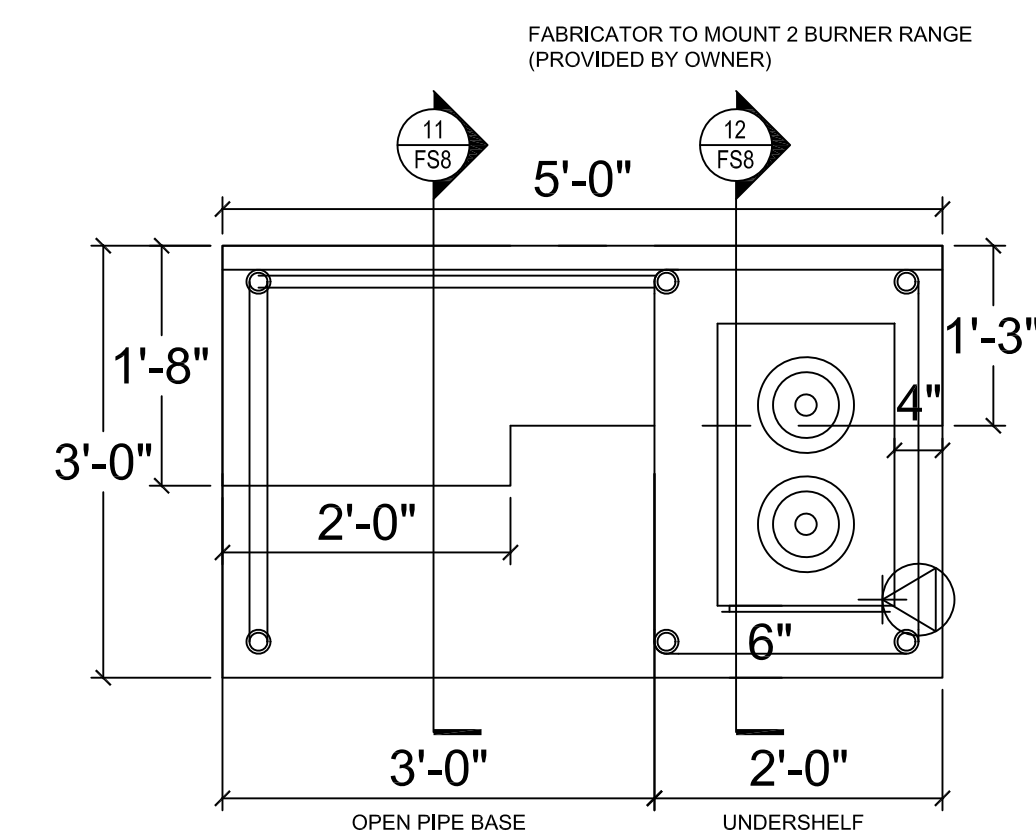
7 OVERSHELF ISOMETRIC (Item 57)
FS8 3/4" = 1'-0"



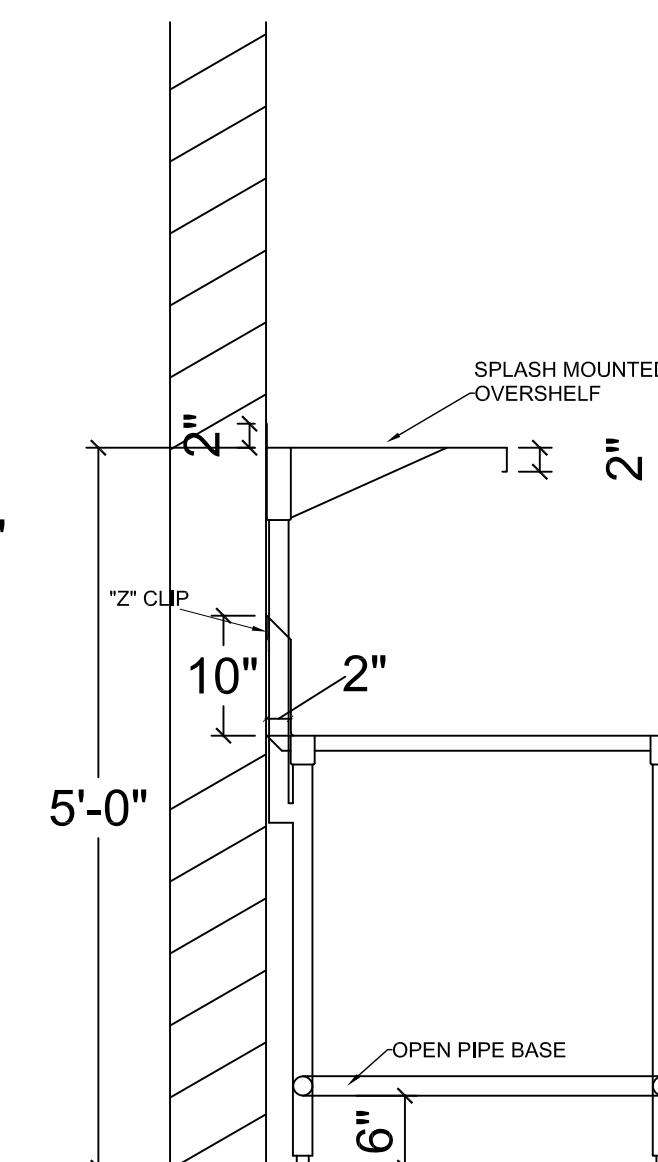
| | |
|-----|--------------------------------|
| 8 | WORK TABLE WITH SINK (Item 58) |
| FS8 | 3/4" = 1'-0" |



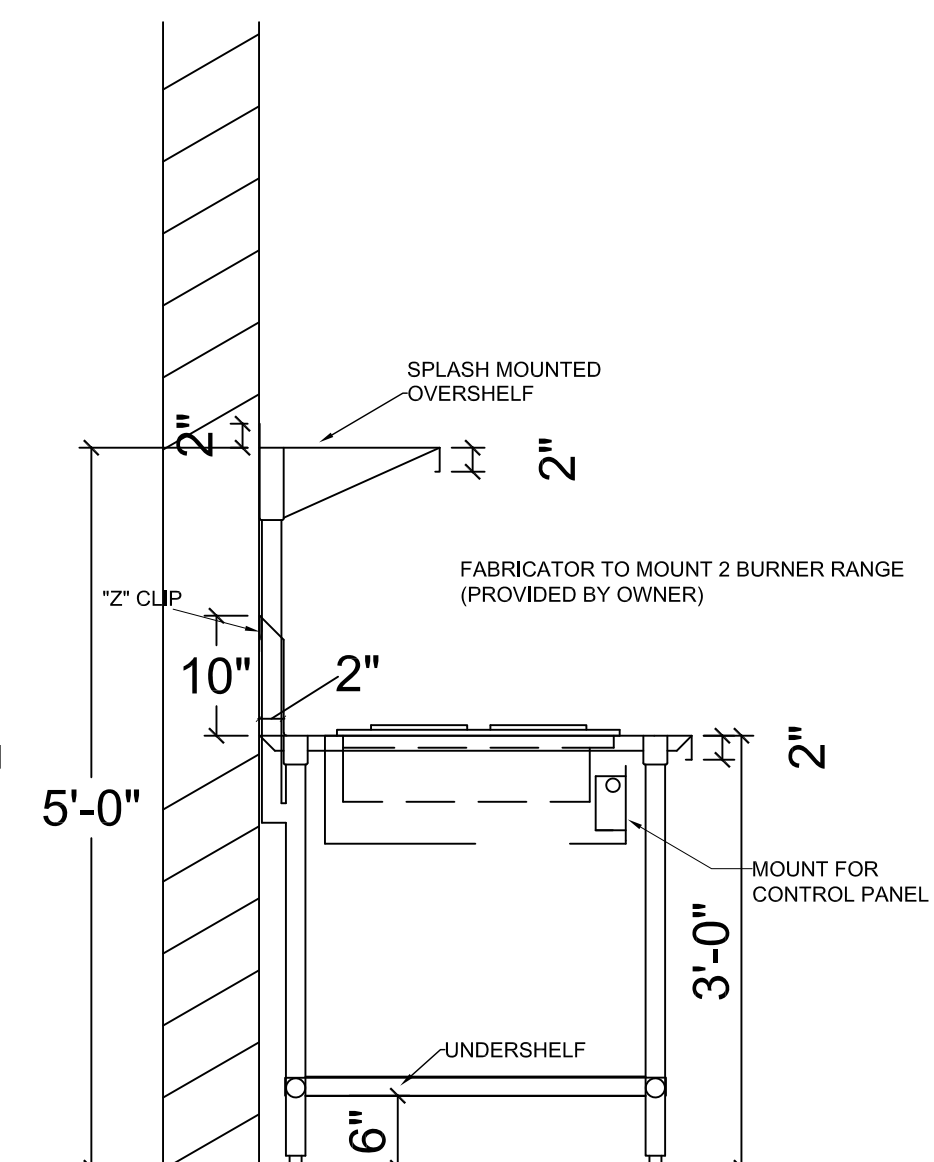
9 WORK TABLE WITH SINK (Item 58)
FS8 3/4" = 1'-0"



10 WORK TABLE (Item 62)
FS8 3/4" = 1'-0"



11 WORK TABLE (Item 62)
FS8 3/4" = 1'-0"



12 WORK TABLE (Item 62)
FS8 3/4" = 1'-0"

1-12 EQUIPMENT DETAILS
FS8 3/4" = 1'-0"



NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

FOR QUESTIONS, CALL THE
Louisiana Office
Angie Eberly
PHONE: (985) 781-4107
EMAIL: reg27@captiveaire.com

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION - JOB#4759747

| HOOD NO | TAG | MODEL | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | EXHAUST PLENUM RISER(S) | | | | | | | TOTAL SUPPLY CFM | HOOD CONSTRUCTION | HOOD CONFIG | | SWITCHES | |
|---------|-----|-----------------|--------------|--------|------------------|------|----------------|---------------|---------------|-------------------------|------|--------|-----|------|------|---------|------------------|-------------------|-------------|-------|----------|------------------|
| | | | | | | | | | | WIDTH | LENG | HEIGHT | DIA | CFM | VEL | SP | | | END TO END | ROW | QUANTITY | LOCATION |
| 1 | 31 | 4824 VHB-G-ND | CAPTIVEAIRE | 4' 0" | 700 DEG | II | N/A | 150 | 600 | | | 4" | 10" | 600 | 1100 | -0.090" | 0 | 430 SS 100% | ALONE | ALONE | 1 FAN | FRONT RIGHT FACE |
| 2 | 53 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 15' 0" | 600 DEG | I | HEAVY | 235 | 3525 | | | 4" | 18" | 3525 | 1995 | -1.211" | 2820 | 430 SS 100% | ALONE | ALONE | | |
| 3 | 75 | 6024 ND-2 | CAPTIVEAIRE | 12' 6" | 600 DEG | I | HEAVY | 275 | 3438 | | | 4" | 18" | 3438 | 1946 | -1.250" | 0 | 430 SS 100% | ALONE | ALONE | | |

HOOD INFORMATION

| HOOD NO | TAG | FILTER(S) | | | | LIGHT(S) | | | | UTILITY CABINET(S) | | | | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT |
|---------|-----|----------------------|-----|--------|--------|------------------------|-----|----------|------------|--------------------|-------------|------------------|------|--------------------|---------------------|
| | | TYPE | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | QTY | TYPE | WIRE GUARD | LOCATION | SIZE | FIRE SYSTEM TYPE | SIZE | ELECTRICAL MODEL # | SWITCHES QUANTITY |
| 1 | 31 | | | | | | 0 | | | | | | | NO | 201 LBS |
| 2 | 53 | CAPTRATE SOLO FILTER | 11 | 20" | 16" | 85% SEE FILTER SPEC | 4 | RECESSED | NO | RIGHT | 12"x60"x24" | | | SC-311110FP | 1 LIGHT 1 FAN |
| 3 | 75 | CAPTRATE SOLO FILTER | 9 | 20" | 16" | 85% SEE FILTER SPEC | 4 | RECESSED | NO | LEFT | 12"x60"x24" | | | SC-310110FP | 1 LIGHT 1 FAN |

HOOD OPTIONS

| HOOD NO | TAG | OPTION |
|---------|-----|--|
| 1 | 31 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. BACKSPLASH 80.00" HIGH X 48.00" LONG 430 SS VERTICAL. |
| 2 | 53 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. BACKSPLASH 80.00" HIGH X 192.00" LONG 430 SS VERTICAL. RISER SENSOR INSTALL 3IN DBL. |
| 3 | 75 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT. BACKSPLASH 80.00" HIGH X 162.00" LONG 430 SS VERTICAL. RISER SENSOR INSTALL 6IN PLEN. |

PERFORATED SUPPLY PLENUM(S)

| HOOD NO | TAG | POS | LENGTH | WIDTH | HEIGHT | TYPE | RISER(S) | | | | |
|---------|-----|-------|--------|-------|--------|------|----------|------|-----|-----|--------|
| | | | | | | | WIDTH | LENG | DIA | CFM | SP |
| 2 | 53 | Front | 192" | 16" | 6" | MUA | 12" | 28" | | 705 | 0.188" |
| | | | | | | MUA | 12" | 28" | | 705 | 0.188" |
| | | | | | | MUA | 12" | 28" | | 705 | 0.188" |
| | | | | | | MUA | 12" | 28" | | 705 | 0.188" |



GREASE DUCT & CHIMNEY SPECIFICATIONS:

PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.

PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

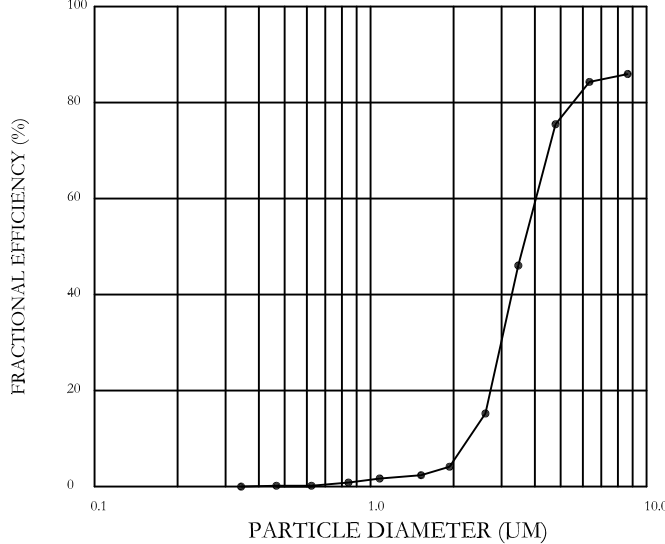
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

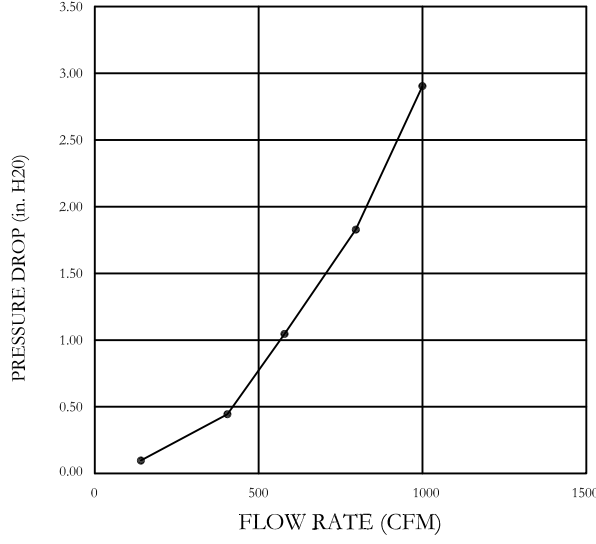
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

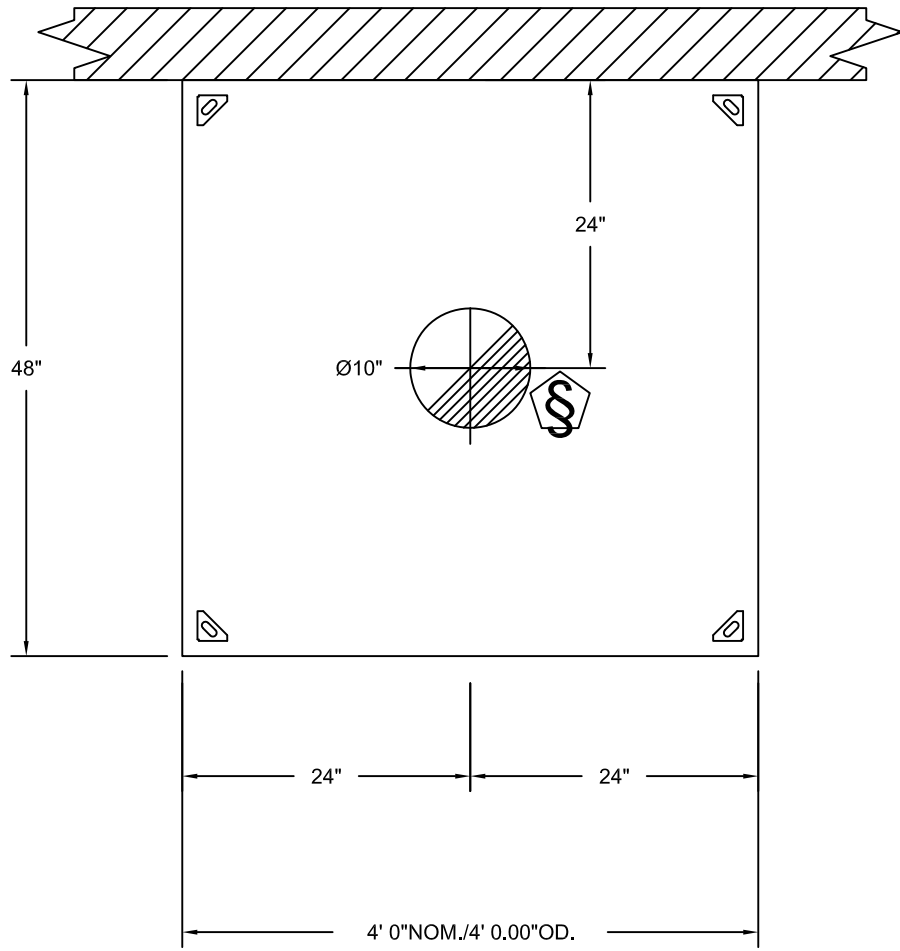
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



PLAN VIEW - HOOD #1 (31)
4' 0.00" LONG 4824VHB-G-ND

REVISIONS

| DESCRIPTION | DATE: |
|-------------|-------|
| | |
| | |
| | |
| | |

CAPTIVEAIRE

Louisiana Office

59040 Amber Street, Suite B, Slidell, LA, 70461 PHONE: (985) 781-4107 FAX: (919) 747-5637 EMAIL: reg27@captiveaire.com

USAID South Sudan

JUBA, SOUTH SUDAN, AFRICA

DATE: 4/28/2021

DWG.#:
4759747

DRAWN BY: ASE

SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

1



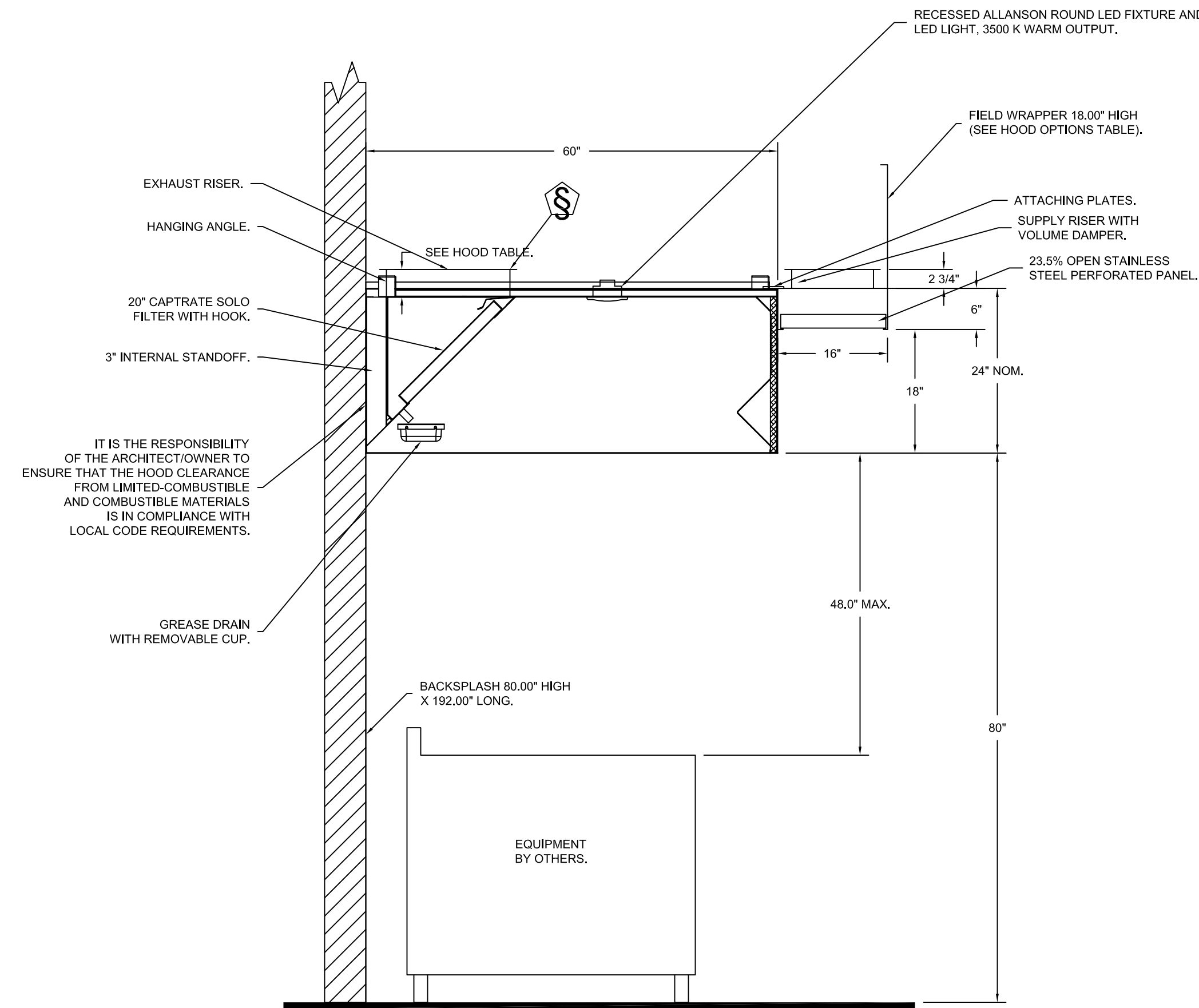
UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

Sheet
Reference
Number

FS9

CLIN 0002

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



UNITED STATES AGENCY
FOR INTERNATIONAL DEVELOPMENT
USAID

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| | |
|------------------------------|--|
| Drawn by: CMC | Contract No: |
| Reviewed by: CMC | File Name: Engineering Support Program - South |
| Submitted by: CMC | Plot Date: 11/3/2021 2:00:10 PM |
| Issued Date: 08/22/2021 | Plot Scale: VARIES |
| Deliverable Date: 09/16/2022 | Contract No: 140144447-0001 / 720625290003 |

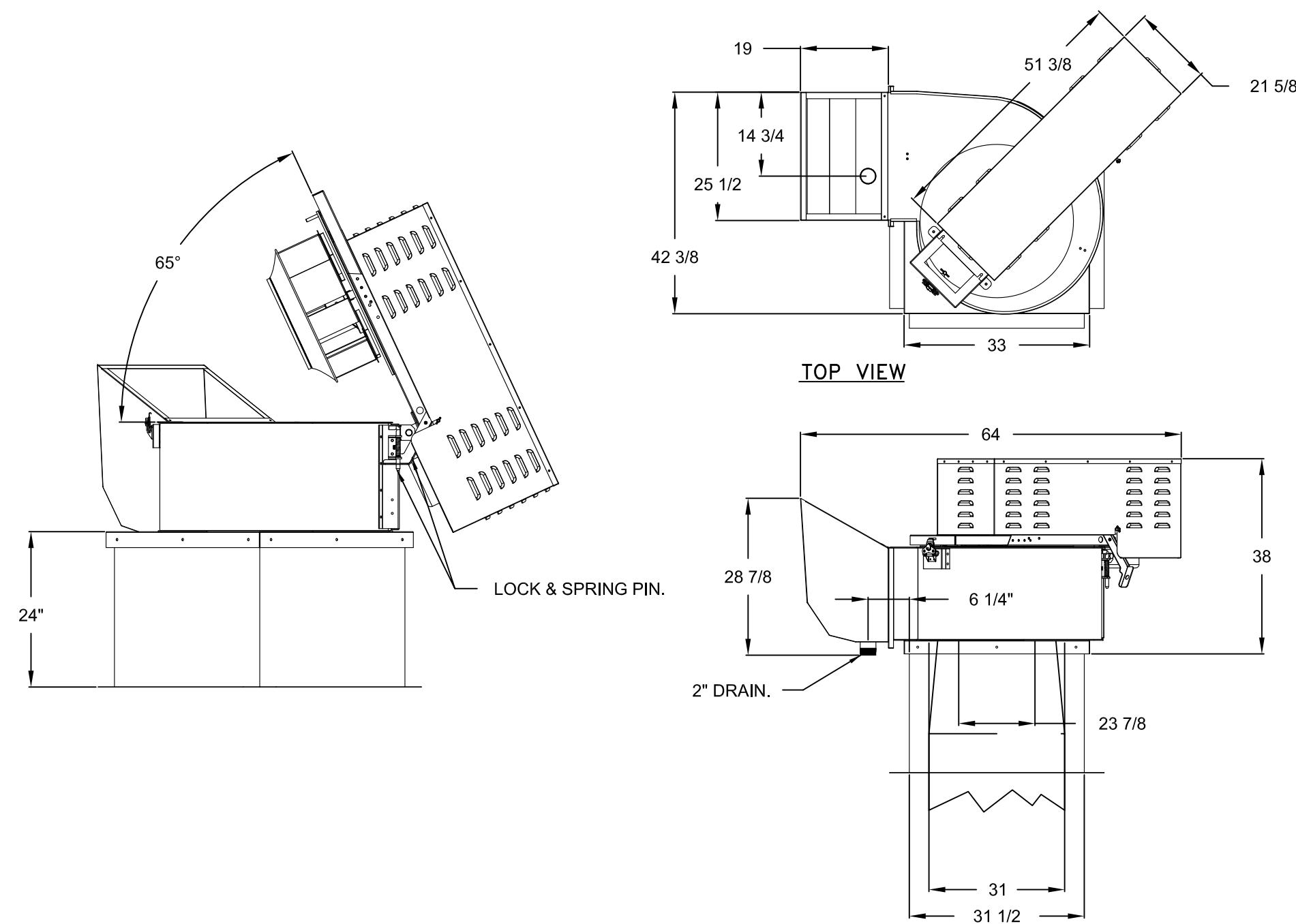
Perez.

ISSUE FOR CONSTRUCTION
KITCHEN FLOOR PLANS
HOOD SYSTEM DETAILS (6 of 12)

Sheet
Reference
Number

= S14

CLIN 0002



FEATURES:

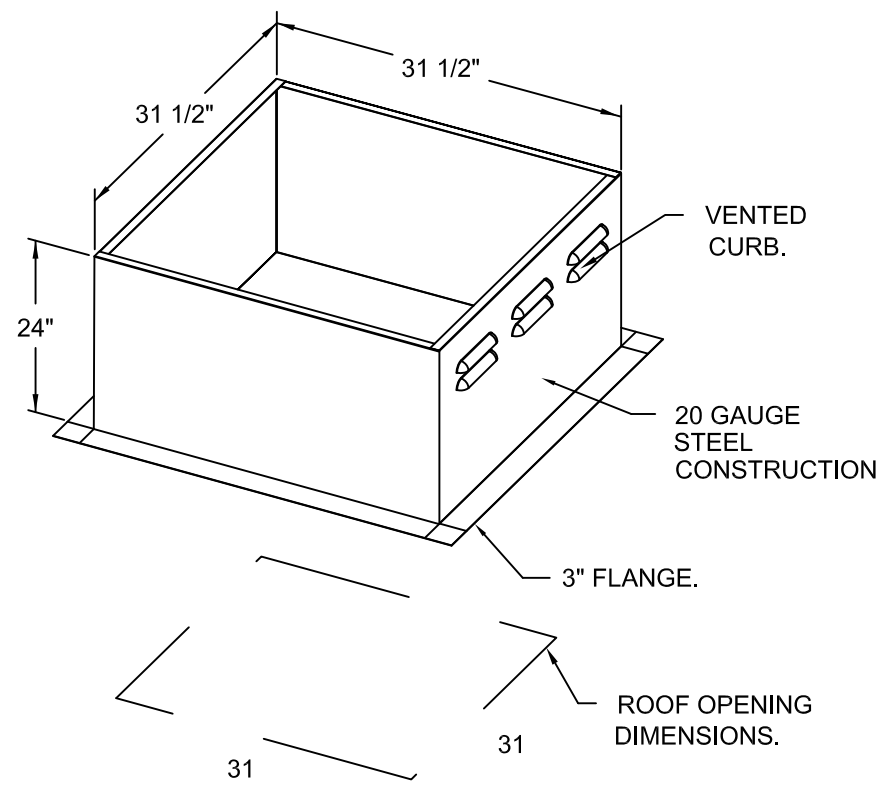
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL762 AND ULC-S645.
- HIGH HEAT OPERATION DIRECT DRIVE 300°F (149°C).
- HEAT SLINGER.
- GREASE CLASSIFICATION TESTING.
- TILT OUT WHEEL.
- LOCKING PIN FOR POWER PACK.
- MOTOR WEATHER COVER.
- INTERLOCKED DISCONNECT SWITCH.
- NEMA 4X SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST BELT & DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

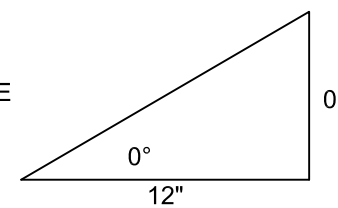
OPTIONS

UTILITY SET GREASE CUP.
FULL CRATING FOR EXHAUST FANS.
RE24DD - HIGH TEMPERATURE HEAT &
SMOKE OPTION. - 572°F CONTINUOUS.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



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FS14

HOOD SYSTEM DETAILS

$$\frac{3}{4}'' = 1'-0''$$


USAID South Sudan
JUBA, SOUTH SUDAN, AFRICA

DATE: 4/28/2021

DWG.#:
4759747

DRAWN BY: ASE

SCALE:
4" = 1'-0"

MASTER DRAWING

SHEET NO.

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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.



GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW"
ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW"
IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING
CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW"
DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER
THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER
MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12",
HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN
HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CUSTOMER APPROVAL TO MANUFACTURE:

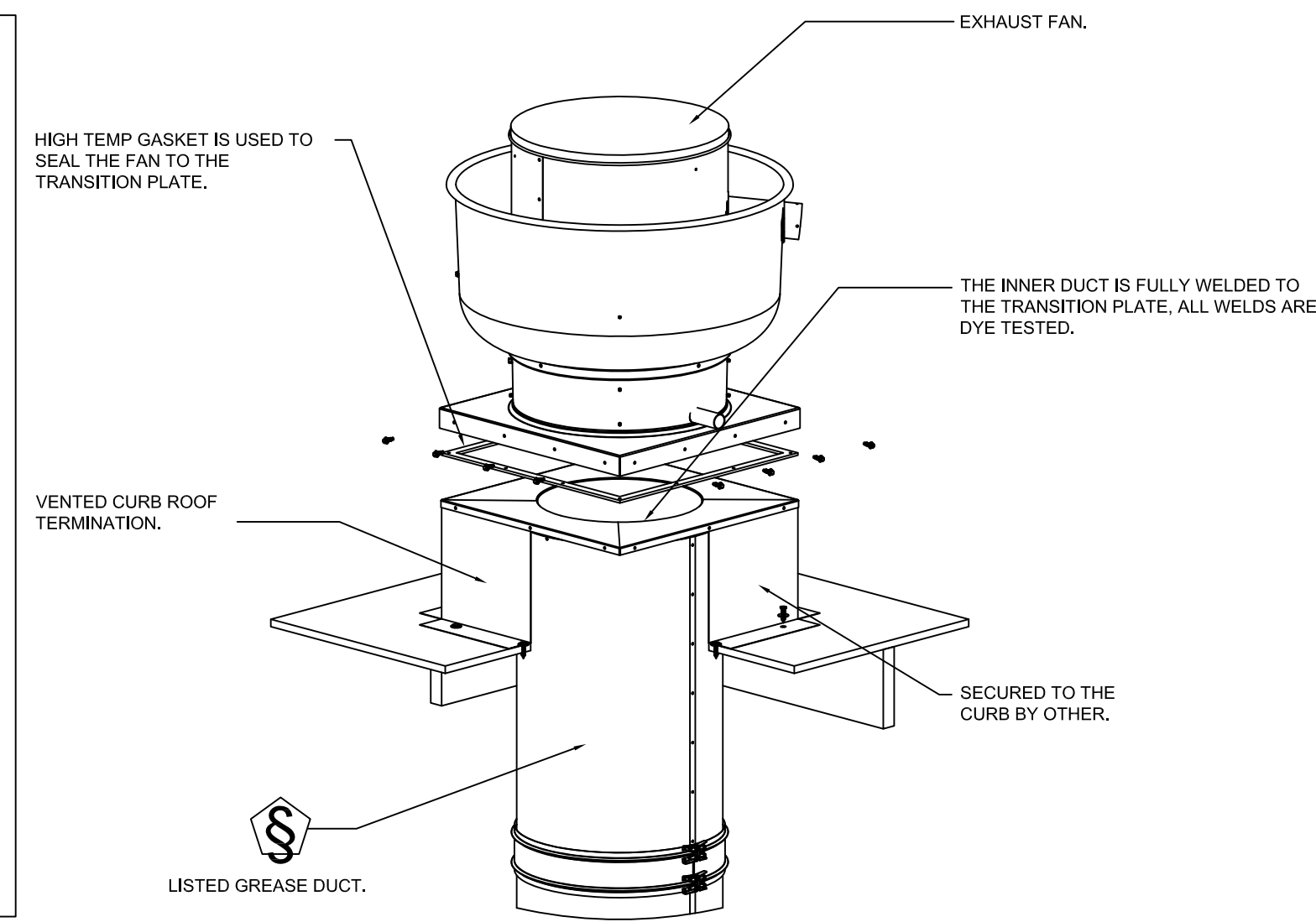
APPROVED AS NOTED ☐

APPROVED WITH NO EXCEPTION TAKEN ☐

REVISE AND RESUBMIT ☐

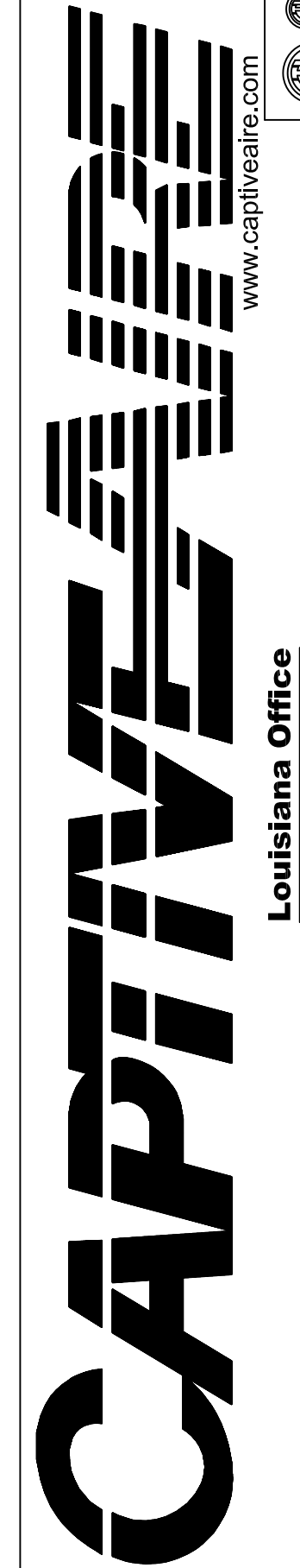
SIGNATURE _____

YOUR TITLE _____ DATE _____



REVISIONS

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USAID South Sudan
JUBA, SOUTH SUDAN, AFRICA

DATE: 4/28/2021

DWG.#:
4759747

DRAWN BY: ASE

SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.
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1 HOOD SYSTEM DETAILS
FS15 3/4" = 1'-0"



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INTERNATIONAL DEVELOPMENT
USAID

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USAID ENGINEERING SUPPORT PROGRAM
(ESP), SOUTH SUDAN
ISSUE FOR CONSTRUCTION

KITCHEN FLOOR PLANS
HOOD SYSTEM DETAILS (7 of 12)

Sheet
Reference
Number

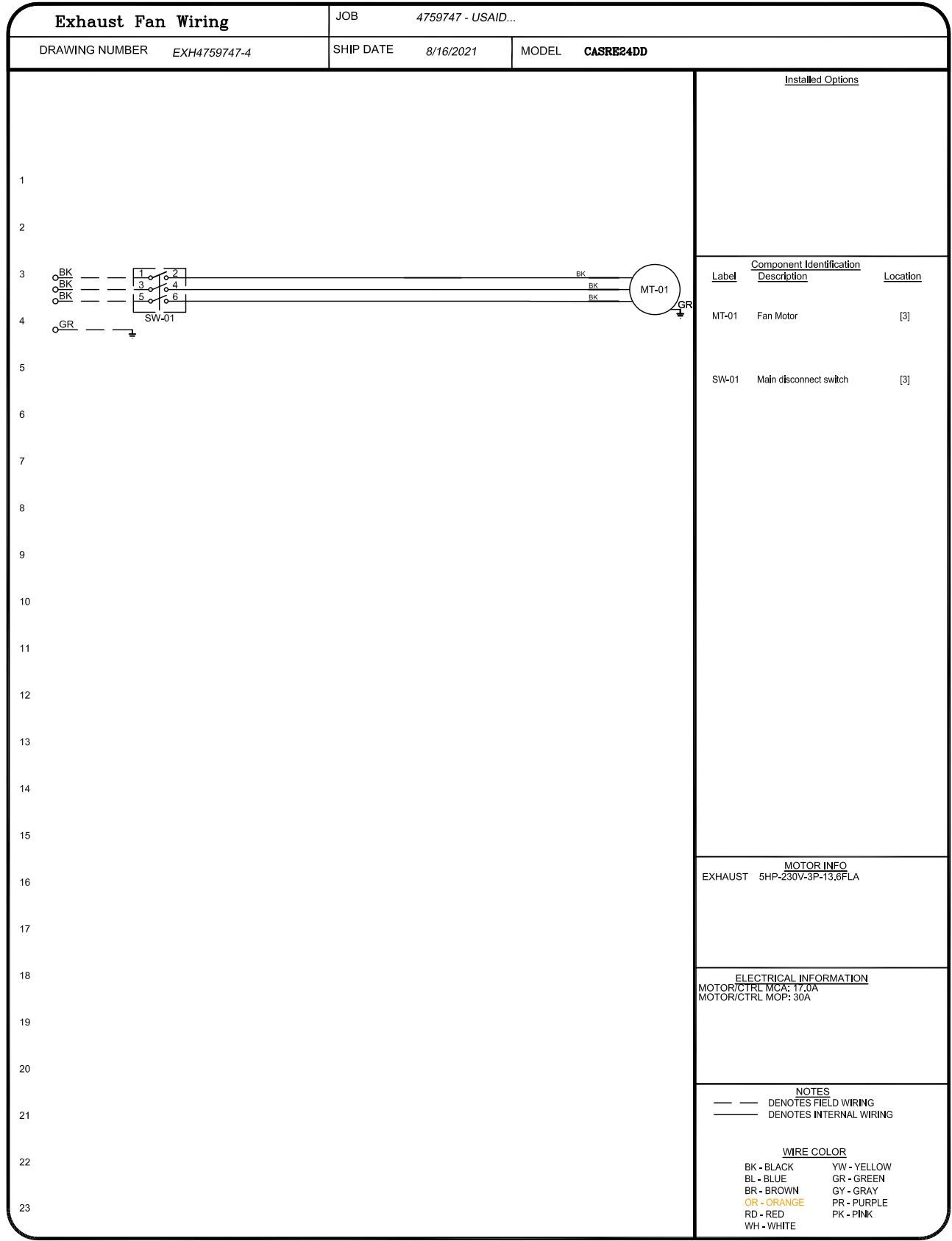
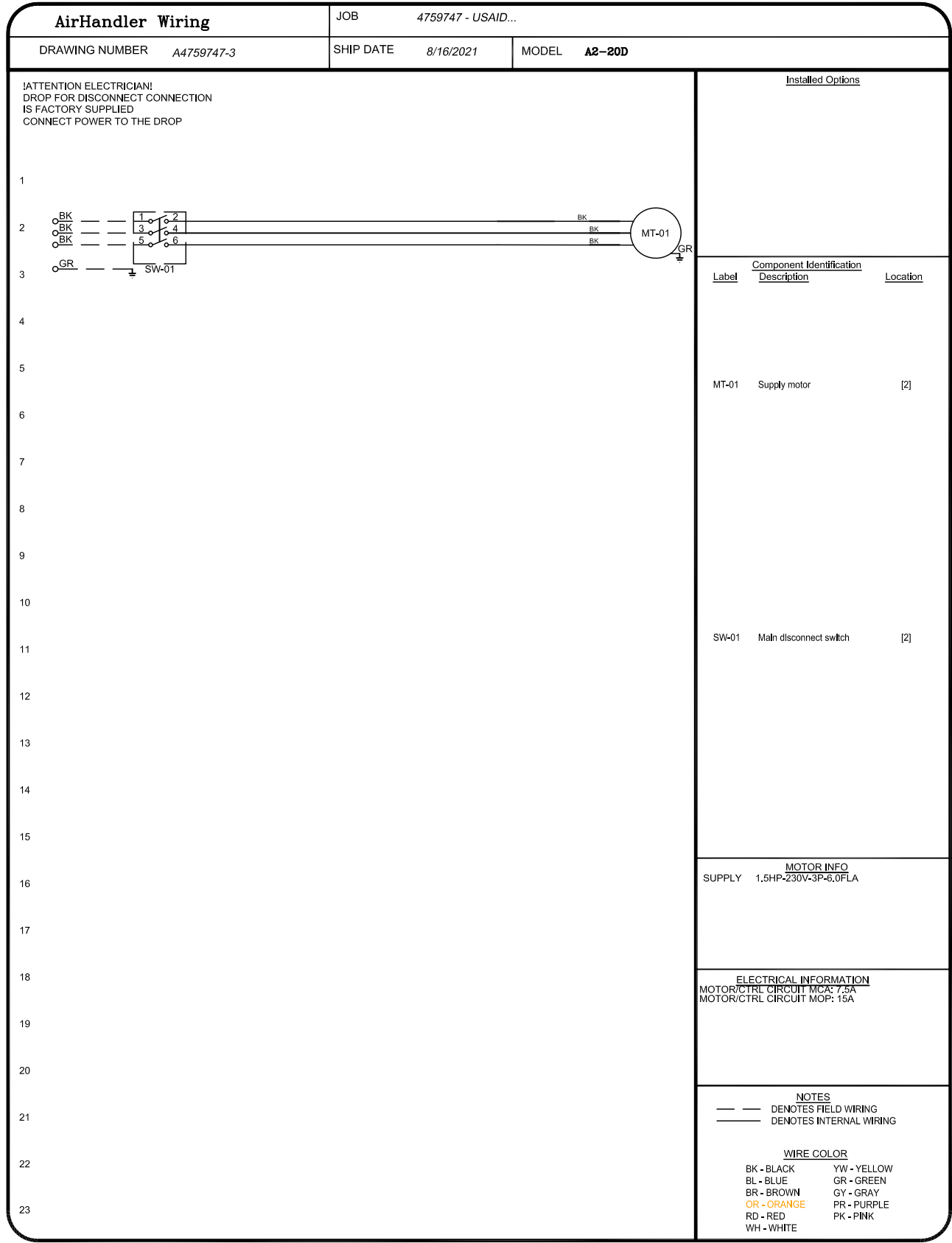
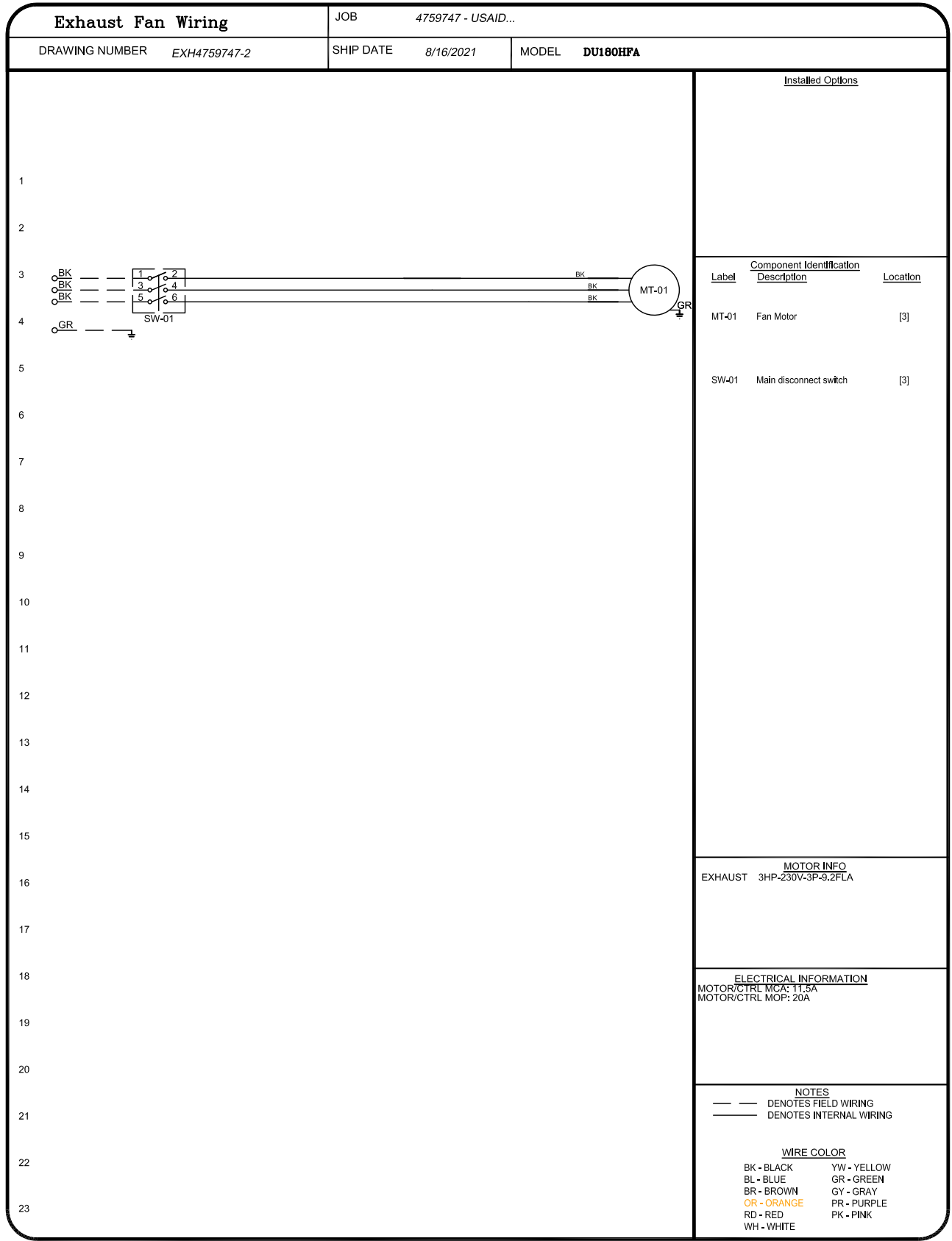
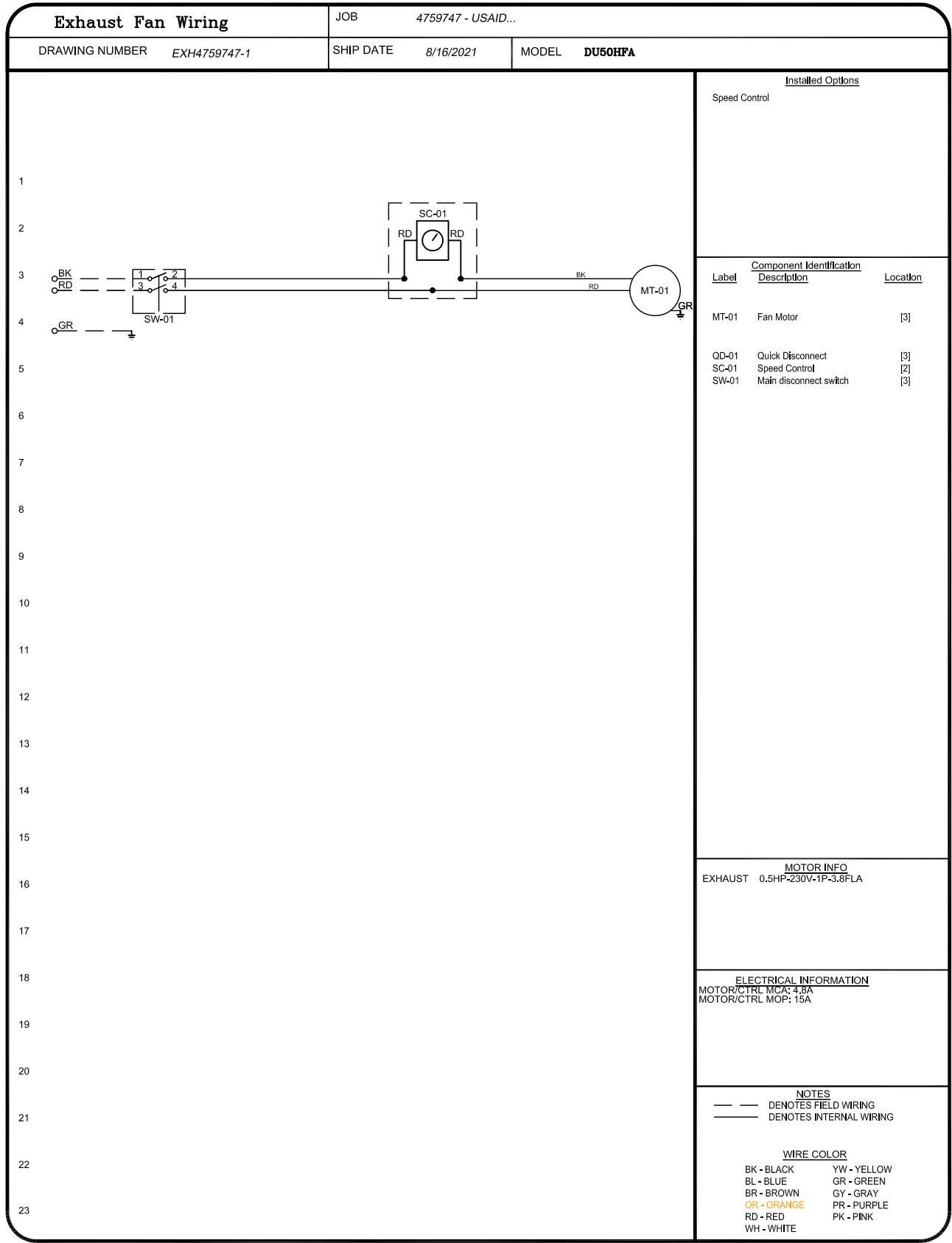
FS15

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FS16

HOOD SYSTEM DETAILS
3/4" = 1'-0"

Food Facility
Design By:
Mc DESIGN LLC
5824 Argonne Blvd.
New Orleans, LA 70124 U.S.A.
504/329-8024
cam@mcdesignllc.com

REVISED
8/16/2021

USAID South Sudan
JUBA, SOUTH SUDAN, AFRICA

DATE: 4/28/2021

DWG.#:
4759747

DRAWN BY: ASE

SCALE:
3/4" = 1'-0"

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CAPTIVE

Louisiana Office

59040 Amber Street, Suite B, Slidell, LA, 70461 PHONE: (985) 781-4107 FAX: (919) 747-5637 EMAIL: reg27@captivateire.com

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USAID ENGINEERING SUPPORT PROGRAM
(ESP), SOUTH SUDAN

ISSUE FOR CONSTRUCTION

KITCHEN FLOOR PLANS
HOOD SYSTEM DETAILS (8 of 12)

Perez.

| | | |
|---------------------------|------------------------------|---|
| Designed by: CMC | Drawn by: CMC | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: CMC | Design Code: USAID/IFC | File Name: BIM-3D-Model-Engineering- Support-Program-USAID- South-Sudan-2020-11-30.dwg |
| Submitted by: CMC | Plot Date: 11/30/2021 | Plot Scale: 1/4"=1'-0" |
| Issued Date: 8/16/2022 | Contract No: 4420441-0001 | Contract Value: 7,288,828.00 |

Sheet
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NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

NOTE: ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DUCTWORK #1 PARTS - JOB#4759747 31

| TAG | PART # | CFM | GPM | ZON E | COVEREDBY | SP | WEIGHT | VELOCITY | QTY | DESCRIPTION |
|--------------------------------------|--------------|-----|-----|----------|-----------|---------|--------|----------|-----|---|
| P1 | DW1017LT | 600 | | | | -0.004 | 5.78 | 1100.08 | 1 | SINGLE WALL DUCT 10" DIAMETER, 17" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL. |
| P2 | DW1011LT | 600 | | | | -0.0028 | 3.90 | 1100.08 | 1 | SINGLE WALL DUCT 10" DIAMETER, 11" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL. |
| P3 ASSEMBLED W/P4 | DW1048AJDKIT | 600 | | | | -0.0062 | 18.63 | 1100.08 | 1 | SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR- STAINLESS STEEL. |
| P4 ASSEMBLED W/P3 SYSTEM AT P4 | DW1910TP | 600 | | | | | 6.62 | 1100.08 | 1 | DUCT TO CURB TRANSITION, 19-1/2" CURB TO 10" DUCT, 16 GA ALUMINIZED STEEL. MISC. NON-STANDARD TRANSITION PLATE. |
| | 3M-2000PLUS | | | | | -0.103 | 0.00 | | 1 | DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS. |
| | DW10CLASY | | | | | | 0.82 | | 3 | DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 10" DUCT, ASSEMBLY. |
| TOTAL WEIGHT | | | | | | | 38.19 | | | |

SINGLE WALL FACTORY BUILT DUCTWORK

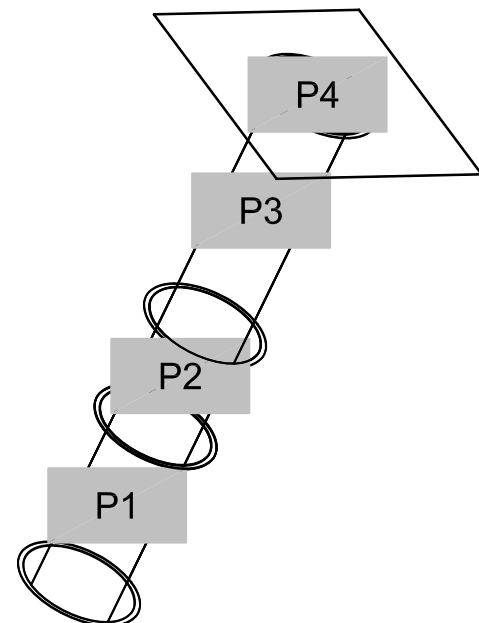
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

| DUCT DIAMETER | HORIZONTAL SUPPORT (FT) | VERTICAL WALL SUPPORT (FT) | VERTICAL CURB SUPPORT (FT) |
|---------------|----------------------------|-------------------------------|-------------------------------|
| 5" | 10' | 10' | 24' |
| 6" | 10' | 10' | 24' |
| 7" | 10' | 10' | 24' |
| 8" | 10' | 10' | 24' |
| 10" | 10' | 10' | 24' |
| 12" | 10' | 10' | 24' |
| 14" | 10' | 10' | 24' |
| 16" | 10' | 10' | 24' |
| 18" | 10' | 10' | 24' |
| 20" | 10' | 10' | 24' |
| 22" | 10' | 10' | 24' |
| 24" | 10' | 10' | 24' |
| 26" | 10' | 10' | 24' |
| 28" | 10' | 10' | 24' |
| 30" | 10' | 10' | 24' |
| 32" | 10' | 10' | 24' |
| 34" | 10' | 10' | 24' |
| 36" | 10' | 10' | 24' |

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

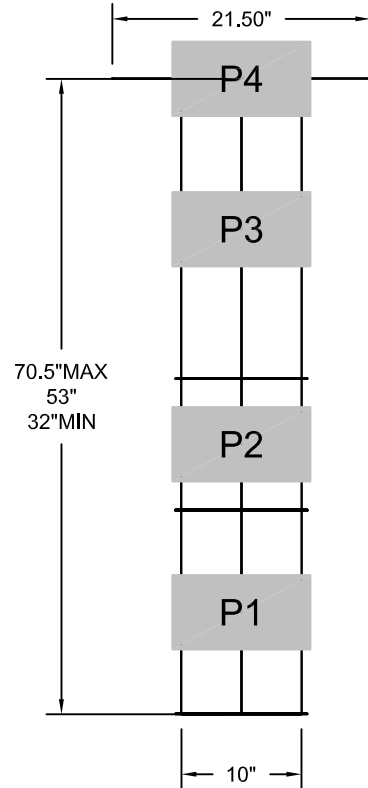
DUCTWORK #1 SE VIEW

31



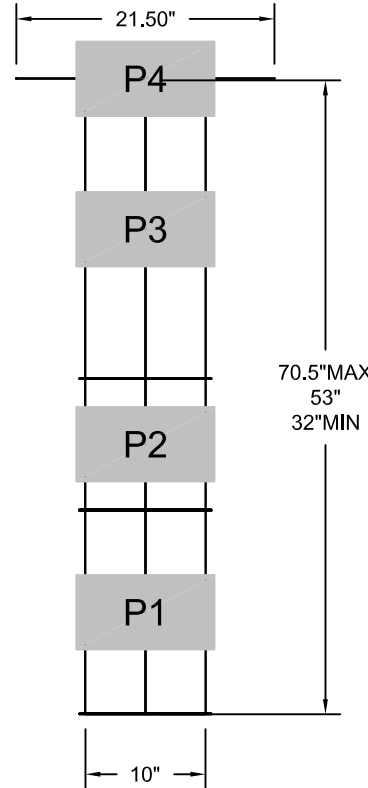
DUCTWORK #1 FRONT VIEW

31



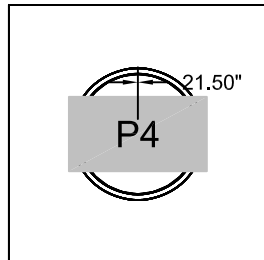
DUCTWORK #1 SIDE VIEW

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DUCTWORK #1 TOP VIEW

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HOOD SYSTEM DETAILS

3/4" = 1'-0"

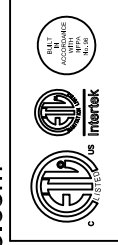


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Louisiana Office
59040 Amber Street, Suite B, Slidell, LA, 70461 PHONE: (985) 781-4107 FAX: (919) 747-5637 EMAIL: reg27@captiveaire.comUSAID South Sudan
JUBA, SOUTH SUDAN, AFRICA

DATE: 4/28/2021

DWG.#:
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BY: ASESCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

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UNITED STATES AGENCY
INTERNATIONAL DEVELOPMENT
USAID

| Symbol | Description | Date | Appr. | Symbol | Description | Date | Appr. |
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|----------------------------|--|--|
| Designed by: C/Mc | Drawn by: C/Mc | Contract Date: NOVEMBER 30, 2020 |
| Reviewed by: C/Mc | Drawn by: C/Mc | File Name: BIM 3D/4D/5D Engineering BIM 3D/4D/5D Engineering BIM 3D/4D/5D Engineering BIM 3D/4D/5D Engineering |
| Submitted by: C/Mc | Plot Date: 11/13/2021 | Plot Scale: 1/4"=1'-0" |
| Issued Date: 08/16/2022 | Contract No: 4470441-0001 / 72682229003 | Plot Scale: VARIES |

Perez.

USAID ENGINEERING SUPPORT PROGRAM
(ESP), SOUTH SUDAN
ISSUE FOR CONSTRUCTION
KITCHEN FLOOR PLANS
HOOD SYSTEM DETAILS (10 of 12)Sheet
Reference
Number

FS18

CLIN 0002

